

BUBBLE BOBBLE

RETRO Niche

**"The Gaming Magazine It'd Have Been
Nice To Have 30 Years Ago"**

**Bubble Bobble Secrets & Strategies - Advanced Tactics For Mr. Do!
Interview with Josh Ge, Creator of Cogmind**

PRESS START

We made it to issue 2! I was pleased with how the first issue turned out, and I even got a few Patreon patrons, who of course will be getting this issue a couple of weeks early. Still, I know how hard it is to be a low-income game enthusiast, so I remain committed to making every issue available for free, without too much delay.

Last time I mentioned the classic-yet-obscure arcade gaming magazine Joystik. While it didn't deal exclusively with arcade games, it was fairly unique in that arcade games were its main focus. It previewed arcade games, posted in-depth strategy guides to popular games, and was filled with illustrations. It might seem a bit, um, "excessively 80s" by today's standards, and its dayglo art design was at times only barely readable, but it certainly made an impression. Look for PDF copies on the internet, won't you?

A new kind of feature is coming to Extended Play next issue, the short preview of an upcoming (or, because of production time, recently-released) indie game. This is in addition to our reviews in the Indie Mines section. It isn't easy making a go of it as a small-team indie dev. Far too often worthy games are left to sink beneath the waves

while mediocre ones with huge ad budgets go on to sell tens of thousands of copies. As I've been known to say, somewhat ostentatiously I think (I had just read *Fear and Loathing in Las Vegas*), to have the eyes to see it can drive one to a kind of despair. Extended Play, among other things, is my attempt to help remedy this situation, to point interested folk in the direction of some mighty fine computoys.

Of course, not everyone will like everything we feature; part of our job is to tell you enough about these games that you should have enough information to make a decision for yourself. We do so with an enthusiastic tone in order to get the momentum to cross a couple of Essential Gulfs, inescapable barriers to this kind of writing. The first is the same obstacle that exists in all communication: the gap between minds, the imperfect filter that is language.

The second is the gap of experience. The world is full of things that you would dearly love if you gave it a try, but it isn't enough just to be told about them. It is far too easy to dismiss a few sentences made in support of a thing, especially a computer game, about which hyperbole comes easy and is easy to ignore. If nothing else, the internet

has made it absolutely certain which video games are beloved of millions of players, a topic that some treat with the seriousness of life itself. Some try to get across this gap with ratings, which, sadly, by making an unmistakable statement, risks the ire of people who disagree with it. That some of those people are advertisers only muddies the waters more.

Anyway, you should intrpret coverage here as us saying, "it is honestly possssible to enjoy this." You, personally, may not. The review is here to help you determine that. But please understand, if you do not like something, that does not mean the thing is unlikeable. This is a lesson that I keep having to relearn myself, so I cannot be too hard on people who fail to see it themselves.

Speaking of the next issue, I'm really excited about the arcade games we'll (okay, I'll) be covering then! One is Taito's semi-forgotten platformer/RPG Cadash. This is really a neglected classic. As RPGs go it's just got a by-the-numbers story, but the gameplay is terrific. You complete an area and it feels like you just finished an area in a normal RPG, but you look at the game clock and it only took four or five minutes! And in terms of difficulty, this is a great game if you're just getting

into classic arcade games and want to learn how to finish something on one credit, yet if you play as a Fighter or Mage you'll still find it difficult to clear. It's also got a surprising number of secrets!

The other arcade game we'll be covering is a personal favorite of mine from the annals of Atari Games. Yes, it's Rampart! Atari's classics, post *Marble Madness*, have not been remembered to the same degree as Taito's, Namco's, Capcom's or Konami's, and I consider this to be a grave injustice. Rampart, coming just at the end of the Silver Age of arcades, the year before *Street Fighter II*, may be the best of the lot. Even if you think you know the game, but have only played one of its many ports, expect to be surprised by how different the game's many versions could be from each other!



Above: Cadash;
Below: Rampart



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Shout-outs

This issue's links page is devoted to a random assortment of resources for newbie developers, although some of them may be useful even to old hands, with a few interesting indie games thrown in. Images from project websites. No one has paid for inclusion on this list. Extended Play does not accept advertising.

Bitsy is a simple tool for making browser-based games: <https://ledoux.itch.io/bitsy>

Arcade is a new module for Python that seems like it solves many of the problems with past game-related modules for that language. It combines Pygame's ease-of-use with pyglet's performance: <http://arcade.academy/>

Snakelike is a kind-of roguelike game where you play as a snake, as the game snake. Like Snakebird, which we covered last month, it combines two genres in an interesting way: <https://placatethecattin.itch.io/snakelike>



Soko Loco

Soko Loco is a charming little game about constructing a railroad: <https://sokpop.itch.io/soko-loco>

rexpaint is a useful ASCII-art construction tool made by Josh Ge, who also made Cogmind, which we talk about this issue: <https://www.gridsagegames.com/rexpaint/>

FontStruct's been around a while, but it's still around, it's still as incredibly useful as it's always been, and it's still free. If you need a quick special-purpose font, give it a try: <https://fontstruct.fontshop.com/>

When you're making a game, getting it playable in some form is an incredibly important milestone for an indie dev, in terms of both confidence and morale, and it also marks the place where iteration becomes possible. But constructing lots of graphics is incredibly tiresome! One useful tool for this, I find, is the Steam product Game Character Hub, which lets you quickly create large numbers of generic JRPG-like people graphics: https://store.steampowered.com/app/292230/Game_Character_Hub/ It's not free, but it's sometimes in bundles, if you're patient.

Indeed, if you're just getting started yet don't have the money for expensive tools or courses, there are worse things you could do than bundle skimming, watching Humble Bundle: <http://www.humblebundle.com/>, and Storybundle: <http://www.storybundle.com/>, for things you could pick up for just a dollar or a bit more. Watch for tools (RPG Maker shows up often) and books (on games and programming) and weigh each tier with its contents and its cost. It takes some effort to separate the wheat from the chaff, but there are nice things to be found there. Don't let well-to-do folk bundleshame you either, grab onto every lifeline you can! Try to avoid deals that are just for one-year licenses though.

For text adventures of a point-and-click, hyperlinked sort, the popular tool is Twine, which can also be used as a general website builder: <http://twinery.org/>

PiAwk

For text adventures of the more traditional, Infocom-ish sort, an incredible tool is Inform 7, a combination language and IDE that can compile down to games that use standard interpreters like the Infocom Z-machine. Amazingly, the source code of projects written in Inform 7 can be read as written English, although its syntax is much more exacting than it appears at first and takes effort to learn. Start learning it on the Inform 7 website: <http://inform7.com/>

Back to games, PiAwk is a wonderful work-in-progress game about a little flightless bird in a black-and-white world. It's not slated to be finished until Fall 2019, but it already is a joy to watch test video of the game in action: <https://www.hiwarpc.com/piawk/>

Finally, Michael D. Salzman runs a Patreon for a nice Atari VCS zine, check it out!: <https://www.patreon.com/atari2600/posts>



Let's check out what Gamasutra's press release page has for us today! Lum-de-dum, search and enter and:

BURNING MAN INSPIRES UNIQUE NEW GAME FOR YOUR PHONE!

Oh god, it must be time for more

SnarkNews - September-October 2018

The Burning Man game app, which I must insist really exists, is called **Mission Me**, and is a kind of ARG, not in the I Love Bees sense, but in the Causes GPS To Drain Battery sense. Developer Dustin Quasar Sacks (really) offers players "real-world quests" like "Doodle yourself as a wizard." While it's easy to laugh at, some include quests like "Ask your mom to share a really long hug." Um, mine's deceased. (Long awkward pause, paragraph break.)

Among games no one really wanted, there's RLR Training's new **Super Seducer 2**! The game where you're a guy, and you're trying to convince a lady to sleep with you, a lady like the boss's secretary at the office. Yes, it's a sexual harassment simulator, whoopee! If you liked the first game, [comment deleted]. This one is more of the slime. The "great" thing about this is how the promotional copy for the game says they got over 70 women to work on it. A new high score! Search The Verge for "Super Seducer" to learn more about this than you'd want to know.



HyperX, "the gaming devision of Kingston," has a new mouse for gamers dizzy from money fumes. Three DPI presets! Optimal weight distribution! Customizable LED lighting! Colorable mouse wheel! Special configuration app! Or, get a \$5 mouse from a department store and put the 35 bucks you just saved into a good meal, or spend it on a gift for your significant other for putting up with your insufferable self. Remember, manufacturers see "gamer" as a synonym for "gullible."

I was a bit confused when I first read the press release for **My Crypto Heroes**, expecting it to be some kind of code-breaking game. Hey, I'm down for a good cryptogram. The description calls it a "worker placement RPG," which puts me to mind of classic board games like Caylus and Agricola, so, even better? But then it says, "Heroes can be purchased in the pre-sale with Ethereum (ETH), and GUM (Game User Money) after the game release," and the awful truth dawns. Crypto here means *cryptocurrency*. It's a F2P game where you buy things outright with cryptocash. So, not only do you have to pay Real Money to play (it claims you can also play for free but we all know how well *that* goes), but you first have to convert it into Fake Real Money, meaning setting up a wallet and just putting the game way past the dreaded Too Much Hassle barrier. I'm tired out even just writing this snark.

Over ten years ago, this author started a column discussing roguelike games. In that age, most people who'd even heard about them knew them for games like Nethack, ADOM and Angband. Now on this day in September I read that Square-Enix Interactive themselves are publishing an indie-made "rogue-lite" survival shooter, **Infected Shelter**. Folks who are playing Buzzword Bingo, you can also mark the word "zombies" on your cards, because it has them, even if the release and the game's site strive not to use that precise word. They're just "infected," as a noun. Parents, make sure to put rubbing alcohol on your kids' cuts and scratches, or else crazy people with bats and flamethrowers might burst in and kill them.



"Animoca Brands Corporation Limited (ASX:AB1, the 'Company') is pleased to announce that it has entered into a strategic partnership (the 'Agreement') with OpenST Limited to develop blockchain games by leveraging OST KIT and the OpenST and OpenST Mosaic Protocols, blockchain infrastructure developed by OST.com Limited (company and services collectively, 'OST')." Why do I feel like I just graduated from law school? What does all this mean? I think it can be summed up by the word: *blockchain*. What does *blockchain* mean? Does anyone really know? It's a black hole from which meaning cannot escape. It is a riddle wrapped in an enigma laying atop a puzzle set beside a mystery that's best friends with a sudoku.

(While we try to keep our sarcasm focused on deserving targets, **Mission Me** and **Infected Shelter** seem like worthy games made by small teams, and we wish them well.)



Let's Take a Journey To The Cave of Monsters: A Guide to Bubble Bobble Levels 1-20

Bubble Bobble is a game of secrets, and we're off on a trip to visit one of the least-seen, a secret room that shows up if you get to level 20 without dying. I've been there several times, and I'll show you how you can reach it too, and fairly! But I'm getting ahead of myself, let's introduce the game first....

Taito's popular 1986 arcade game Bubble Bobble is one of a class of game that we might call SRPPs: Single Room Platformer-Puzzle games. These are a category of game that consists of a series of single side-view rooms, where the player controls some small surrogate on the screen, and must typically use a basic set of abilities, often just jumping and a means of attacking, to defeat all of the enemies in the playfield-like room, which then allows passage to the next room, among some large number of them. Although Donkey Kong itself fits the description if taken literally, SRPPs are actually a fairly exclusive genre. Taito made a few of them, some of them sequels to Bubble Bobble itself; others of the same type are Bubble Bobble's predecessor Chak'n Pop, contemporary The Fairyland Story and Toaplan's 1990 release Snow Bros.

Of them all, Bubble Bobble

is the best known, so popular so as to be almost legendary. Its popularity is a result of its shallow difficulty curve, its insanely catchy music, its easy-to-grasp gameplay, its vast number of power-up items, and the game's ridiculous depths as far as secrets go.

One of the secrets is the purpose behind this article: there are a set of three secret rooms that become available to players (up to two can play at once) if they can reach rounds 20, 30 and 40 (out of 100) without losing a life. These rooms are (assuming you weren't spoiled) one of the keys to finding the game's "true" and "Happy End" ending, for reasons we'll get into, but reaching even level 20 without dying at all is quite challenging. This guide is here to help players achieve this feat on their own, and explain to them its importance.

The Bubble Bobble Series

In addition to the original game, there are at least three intersecting and crossed-over series connected with Bubble

Bobble that interested players might wish to examine. There's the original sequence themselves, which could be taken to include Rainbow Islands (arcade and ports) and Parasol Stars (various console and microcomputer versions, but no arcade release). Bubble

Bobble might also be seen to be a follow-up to the earlier arcade game Chak'n Pop. All of

these games are SSRP-type games (except maybe Rainbow Islands), although some of them have some amount of scrolling within their rooms.

Even if they're in a similar genre, these games still play differently enough to Bubble Bobble that there

was demand for more games with Bubble Bobble's specific play mechanics. That would bring us the rare Famicom/NES game Bubble Bobble Part 2 (1993) and arcade games Bubble Symphony and Bubble Memories. On top of these, there's also the Puzzle Bobble side-series, also known as Bust-A-Move, which have completely different play style but use many of the same characters.

Bubble Bobble Basics

The game consists of 100 rooms of enemies that can be tackled either by one player going solo, or two playing cooperatively. Each room has different enemies and a different layout. Every room is a single screen. While the game is a platformer, unlike most of them, a player character falling off the screen doesn't immediately lose a life, but instead wraps around to the top. It's very easy to die in



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Bubble Bobble, so even small advantages should be appreciated.

The player's representatives in the game world are "bubble dragons," color-coded green or blue depending on player. A bubble dragon's a cute li'l lump of scales that can jump about four blocks high (blocks here are much smaller than those in Mario, mind you), with very little control over your motion when you're in the air. You can adjust your motion slightly while in mid-air, but there's still not much you can do once you've launched yourself.

A lot of deaths come from when you take a leap, and an enemy hits you before you land. In fact, a lot of deaths happen, period. Our favored soaplizards are fragile like, well, bubbles. If any enemy so much as brushes against one of them, they perish on the spot. Bubble Bobble is not sparse with extra lives, at least at first, but it's not

long where you're losing them all over the place, and then the game is over.

Continues are odd—you are free to join or continue a game at any time so long as the other player is still playing. If you're in a single-player game, then your game ends the moment you lose your last life, but in a two-player game continuing is easy so long as both players don't run out of lives at once. Unlike as you might be expecting, adding another credit does not allow a running player to simply buy extra lives. This adds a bit of strategy; to get far, the players must be desperate not to run out of lives at the same time. It can help to keep credits in the machine for the event that one player fails early; then they can at least pound on the start button to try to rejoin before their partner also fails out.

It's not just enemies that are problems for our reptile heroes. Bubble Bobble's levels have some places where, if a player enters them,



*Bub
(Player One)*

it is basically impossible to escape. One of the earliest such places is Level 19, which has a number of tall shafts with ground at the bottom, far too far for a player dinosaur to leap from. There are a lot of these places where a player can get out by blowing bubbles then jumping on them, holding the jump button down and thus bouncing on them over and over. If that's not possible (the case if the shaft is two blocks wide, as the bubbles have nowhere to go), sometimes a player can get out by popping a passing Water Bubble, letting the flow carry them out of the trap.

If none of these options will suffice, the player must either try to somehow defeat the remaining enemies from their trap (usually using passing elemental bubbles) or wait for the Skel. The Skel, aka "Skel Monsta," aka "Baron Von Blubba," is a skeletal white whale that appears if the players take too long to complete a level. It is an example of what I call a baiter, after Defender's

harassing enemy, a powerful, sometimes invulnerable, foe that arrives if the player stalls the game for too long. The Skel is easy to avoid if the player has full movement, at first at least, but homes in on the players faster and faster, until it kills one of them. In a two player game each gets their own Skel. At least, in the process of losing a life, the player is freed from their trap.

However, this is not acceptable for us on our audacious quest. For we are bubble dragons on a mission: to lay our eyes on one of the game's fabled Secret Rounds, and behold for ourselves the wonders contained therein.

Secrets Upon Secrets

Bubble Bobble's reputation is not built off of its easy-to-grasp gameplay alone. A lot of it, maybe most, comes from the insane array of awesome items and secrets buried in the game. Bubble Bobble's cute facade hides a true player's game, an experience that must be studied and practiced to



*Pink Candy
Long Range*



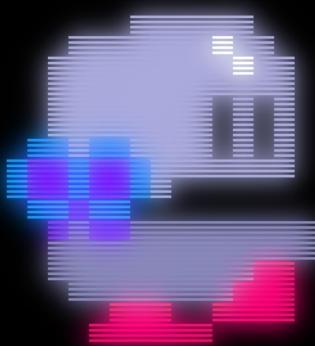
*Orange Candy
Rapid Fire*



*Blue Candy
Fast Shot*



*Shoe
Extra Speed*

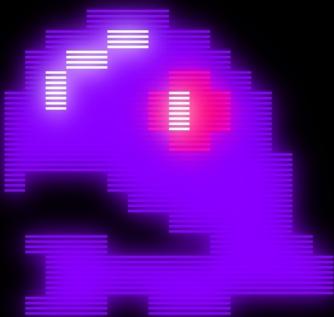


Zen-Chan

(aka "Bubble Buster")
Walks left and right, jumps straight up, sometimes takes a running jump to the side

master, and even then, there's a lot of studying and practicing to do.

About those items. It's usually not far into Bubble Bobble (maybe as early as the first level) where one of the game's many entertaining special items show up. There's the Blue Cross, for instance, which immediately floods the whole board with water and instantly defeats all the enemies, turning them into valuable diamonds. The various Cane items create a gigantic, high-scoring bonus item that appears in the



Monsta

(aka Beluga)
Moves diagonally, bouncing off of solid objects. Fairly predictable.

center of the board once the last enemy has been defeated.

Then there's three different flavors of candy, each of which provides a useful powerup that lasts for the rest of the current life. There's powerful weapons, invincibility hearts, time stop clocks, bonus rounds and many other wonderful prizes to discover. There's even an item (the Bell) that alerts you if other powerful items are due to arrive soon. The best of them all may be the Umbrella, which outright skips you forward from three to seven levels.

These special items are quite powerful, and Bubble Bobble is hard enough that figuring them out is an important step towards learning to play it well. We'll be getting to that shortly, but in the meantime I should explain what the Secret Rounds are.

When you reach levels 20, 30 and 40, if at least one player in the game managed to get there without losing a life, its entrance is actually presented as one of these secret items; it just has the graphics of a silver doorway instead of some random treasure. If a player manages to make it to level 50 without dying, the prize is a golden door that skips 20 levels, but good luck finding that one.

Preparatory Work

First things first. If you're playing this in an emulator, go into the machine settings and set it to Easy.

There's no reason to make this harder than it has to be. Bubble Bobble has a dynamic difficulty feature that increases the difficulty when you gain a life, and decreases it when you die, that can play a major role in your progress. This means, even if you start the game on Easy settings, after awhile it'll creep up towards high difficulty anyway. High dynamic game difficulty both increases enemy speed and reduces the time enemies stay trapped in bubbles before breaking out.

Since your aim is to get as far as you can without dying, this means it's actually a good idea to avoid extra lives. These have two sources: points and EXTEND bubbles. If you're serious about getting there by any means, you might want to disable extra lives by points in operator settings.

The first few rounds are easy, especially in an arcade where you're very likely to find powerful items in the first few levels. On a freshly initialized MAME setup this never happens, but in the meantime it means you'll have to clear these boring early boards yourself. Take advantage of the downtime by launching a lot of unnecessary bubbles and jumping a lot. Why? Well....

Nearly every round in Bubble Bobble generates two items, a points item that appears first (usually 7 seconds in) the value of which depends on how long



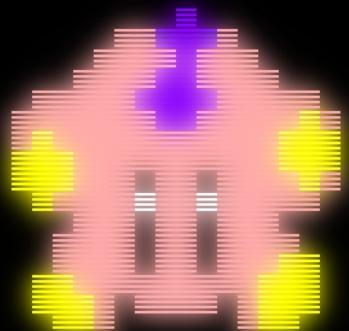
Mighta

(aka Stoner)

Moves as Zen-Chan, but also fires large, round rocks at players on the same line.

it took you to finish the previous level, and a special item (at 12 seconds) that give you some kind of ability. There's a tremendous variety of these, and they give Bubble Bobble a lot of its appeal. What's not well-known is the fact that, despite appearances, they aren't random at all.

Every special item has a trigger condition, something you've done in the game up to that point that makes it appear. Internally, Bubble Bobble maintains a large array of counters, and is



Pulpul

(aka Hellaballoons)

Flies left and right quickly, while slowly moving up or down. A little harder to handle than Monsta.

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Canes

Appearing after you pop three of the same EXTEND letters, they make a giant, 10,000-point bonus item appear at the end of the round.

constantly watching recording everything you do in a game like a Z80-powered NSA agent. At the start of every level, the game looks through its list and stops when it finds the first counter that's exceeded a specific target value. This target value is usually unchanging, but for some items depends on the game's operator-set difficulty level.

When the machine finds a count that's gone over its threshold, it resets that counter to zero and sets a

Umbrellas

The best special item, these skip you ahead 3, 5 or 7 rounds instantly! They're triggered by popping at least 15 Water Bubbles.



Potions

They come in different colors, but they're all triggered by wrapping the screen enough times, and they all turn the current level into a Bonus Round.

specific special item to appear on that level. It only does this once per level; any other counters that have been passed continue to grow. There is a set order in which the threshold values are checked, usually prioritizing the more exotic and powerful items, whose triggers are difficult to activate. It also does this regardless of whether the item actually appears or not; if you finish the level before it shows up, it's lost.

The thing about all those counters is, they are not reset at the start of a game! Any progress the previous game made towards generating special items is retained, meaning successive games can take advantage of them to improving their own state. This is what makes playing via MAME a bit more boring than on a physical arcade machine; when an emulated MAME machine starts up, all the counters are initialized at zero, meaning that the first level, instead of possibly generating an awesome



Crosses

There are three colors, and each give you a different special attack power. These tend to appear periodically; two are triggered eventually just by getting each level's items, the other by killing foes with Water Bubbles.

item like a Lamp or an Umbrella, will see no special item generated at all!

(As a personal aside, I love it when communal game systems like arcade machines use the actions of past games to influence succeeding ones. Usually you expect a video game to begin from a zero state every time you play, but this isn't always the case!

Pinball machines sometimes have what are called progressive jackpots that make this kind of thing more visible.)

But one thing that is true of an initialized MAME game is that the Candy and Shoe items, which provide basic but life-lasting powers like rapid fire, fast bubbles, long range and quick movement, but which appear late in the threshold list and this often get overruled by flashy yet temporary powers, have a better chance of showing up. You can trigger them yourself, and should take advantage of the early

rounds by building them up. Pink Candy (long range) appear after players fire 51 bubbles; Orange Candy (rapid fire) appears after players jump 51 times; Blue Candy (fast shots) appears after players directly pop 51 bubbles; and the fast-movement Shoe counts the number of frames that players have collectively spent moving along the ground. If you're efficient about building up your counters, you can have all four of these powers active by the end of Round 5.

There are two other items of special interest to us. The Magic Potion items, when collected, immediately cease the current round and turn it into a bonus round, filled with points to collect, but more importantly immediately defeat all the enemies upon collecting it. There's a number of other items that instantly finish a round for us, but most of them have special requirements, like popping a lot of Fire bubbles, collecting a lot of items or

Rings

They appear when you eat three candies of the same color, and give you special bonus scoring until the end of the current round. Not too great, though.



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killing enemies with different elemental bubbles. Potions are special because their requirement can be done in many levels. Their trigger counter follows the number of times either player wraps around the screen from bottom to top. Do this at least 15 times and a potion will appear in an upcoming round. You can do this quickly by finding a place where a bubble floats near the top of the screen and bouncing on it repeatedly, causing your lizard-guy to bounce up off-screen, or else finding one of the rare levels where there's a step from which you can naturally jump high enough to wrap the screen.

Of even greater importance are the Umbrella items. These items instantly advance you ahead up to seven levels, and you still get credit for the levels you passed as if you cleared them. If you could somehow make Umbrellas appear at will the Secret Rounds would be easy to reach, but their appearance is limited by the fact that their trigger condition counts popped Water Bubbles, which do not appear in most rounds, and appear slowly when they do. 15 Water Bubbles popped (whether they release water or not) will cause the weakest Umbrella, that skips three levels, to appear. To get the five-level skip Umbrella, you must have a total of 20 Water Bubbles popped at the start of a level; to get the most valuable, seven-level-skip Umbrella, you have to have popped 25 of

them. You'll be lucky to see much more than 25 Water Bubbles appear in the first 20 rounds, so you'll probably only be able to trigger one Umbrella in that time. Fortunately, the first two Water Bubble rounds are fairly easy, and with careful play you can pop many of them before the Hurry Up alert appears.

The Levels

All of that said, here's the first 20 rounds of Bubble Bobble, and how to conquer them, hopefully on the first life:



#1: Difficulty: *
Befitting the first level of such a long game, this one's a breeze. Not only are there only three weak, slow Zen-Chan enemies to deal with, but trapped enemies won't start to escape until nearly the Hurry Up timer. Take advantage of this by blowing 35 bubbles and popping them, while jumping a lot, to set up Candy items in upcoming rounds.



#2: Difficulty: *

Just one more enemy here than last time. Jump up to the center ledge and bubble the Zen-Chans as they come down. With practice you can get them all before they fall down further, but if you miss one or two it's not hard to track them down. After they're all bubbled, you can use the rest of the time preparing more Candy, or doing laps back and forth on the bottom level to prime a Shoe powerup.



special power item appears, you lose it, and if you defeat the last enemy in a level, any special item left uncollected will immediately disappear. Make sure to wait at least 12 seconds to get the item!



#4: Difficulty: *

Jump up to the ledge above you and bubble the Zen-Chans as they fall into range, just like in Round 3. You'll probably start seeing EXTEND bubbles here, which are generated when you pop three or more enemy bubbles at the same time, carried over from previous rounds. Spelling EXTEND will instantly clear the current level, which is good, but also award you an extra life and thus advance the difficulty, which is bad. Still, I usually just go for the letters anyway, because it's fun.



#3: Difficulty: *

First thing to do is to immediately jump up to the point marked with an X and keep firing bubbles to the right until all enemies are encased. Remember, if you clear a level before a

RETRO



#5: Difficulty: **

This is the first level with Water Bubbles. Try to bubble the four Zen-Chans then hold out on popping the Water Bubbles until Hurry Up begins. Be careful though, the Zen-Chans will probably escape before then and have to be rebubbled. The air currents in this level also tend to draw their bubbles to the top of the screen, where they'll get mixed up with the Water Bubbles. If you end up killing the last enemy by accident don't feel too bad about it, as it frequently happens.



#6: Difficulty: **

This level is similar to the previous one, but two of the Zen-Chans have been replaced by Mightas, which have projectile weapons. Be careful any time you're in a horizontal line with them. It's still early in the game so they'll be slow, but still, bubble them

quickly. It's a lot easier to farm Water Bubbles here, and it's possible to get up to 15 popped total by now, but it's best if you stop at 13 or 14, so as to have the best chance of getting a seven-level Umbrella later.



#7: Difficulty: **

Four Mightas appear here. Use the same trick you've been using, standing on the ledge below them and bubbling them as they fall in front of you. By now you should have both long range and rapid fire, which will make it much easier. The Mightas won't stay bubbled as long before escaping, but make sure to grab the special item, which will appear in the upper-right corner, before passing this round.



#8: Difficulty: *

Now that you're decently powered up, you shouldn't have much trouble here. The worst thing about this level is that, once bubbled, the enemies won't cluster together but tend to separate into one group

on each side of the screen. You've probably got most, if not all four, of the main powerups by now, and the special items will probably be boring for a few levels.



#10: Difficulty: ***

The game is now starting to heat up. Not only is this a particularly chaotic level, it's the first one with the bouncing purple Monsta enemies. (The game tends to introduce new enemies on round numbers that are multiples of ten.) This is one of the levels that caused me to suggest playing on Easy difficulty; if the dynamic difficulty has gotten too high, it's easy for enemies to escape from your bubbles in just a couple of seconds. Play this one carefully. Water Bubbles show up after a short while and can help you clear out the enemies, but be cautious. Keep out of danger and pop whatever you can. It's easy to run out of time if you're too cautious, though. This level is a major stumbling block. Don't use it to farm Water Bubbles or EXTEND letters, just get through it.



#9: Difficulty: **

Five Mightas show up. You can handle them the same way as before, but be quick! If you delay even a second, one will probably fire a rock at you. If that happens, drop down a level and try to get them there. Make sure to rebubble them if they start to escape before you pop them, which is pretty likely.



RETRO



#11: Difficulty: ***
At the beginning, quickly jump to the middle island then up to the center ledge. Firing left and right as quickly as you can, bubble all seven enemies as they come down.



#12: Difficulty: **
If you're fully powered up, and you're playing on Easy, this one can be finished quickly. Bubble all the Monstas as they rise up, from off the bottom of the screen, into your horizontal line. Then as they drift up, fall through to the top of the screen and crush them.

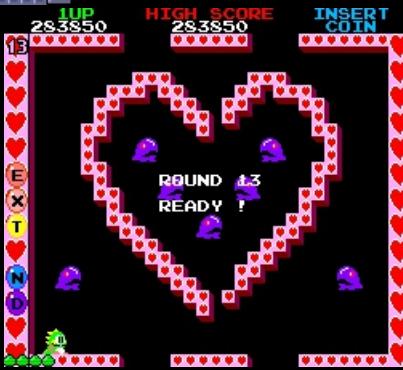
Blowing lots of extra bubbles helps you here; when you pop a bubble, all bubbles that are close to it pop too, and so on, enabling you to pop lots at once if they're in a cluster, even if it extends far across the screen.

If you're not playing on Easy, or the dynamic difficulty has risen enough, some Monstas might escape. Try to pop any stragglers as well as you can. Do not fall into the traps in the sides of the screen unless you need to to pop the last enemy! It's very difficult to escape from



Pop the four on the left first. You probably won't have enough time to pop the others before they escape, leaving one angry Monsta and two angry Zen-Chans on the board. The Monsta's not hard to care off: watch its bouncing pattern to predict when it'll come to your horizontal level so you can finish it off. The Zen-Chans will tend to gravitate to the bottom of the screen where they'll jump back and forth across the pits. Fall onto the middle island, on the side they aren't, then bubble and pop them from there.

them. Water Bubbles spawn on this screen, but it's usually better to go ahead and wine out the enemies.



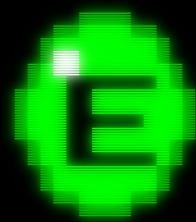
#13: Difficulty: **
This would be a very hard round if it weren't for the Water Bubbles that float up from the bottom. Take care of the two Monstas bouncing around outside before focusing on the ones in the heart.

There is a special trick when dealing with all the "elemental" bubbles (Water, Lightning and Fire): their effects tend to spread in the opposite direction to which you are facing. Use this to pop the Water Bubbles at the top of the heart and direct their flows into it, to kill the enemies trapped in

there. Don't get swept into the heart yourself unless a really REALLY good prize appears in there, as you'll probably just get killed. Once only enemies inside the heart are left, you can try to farm Water Bubbles, directing the water away from the heart's opening but make sure to kill the last Monstas before the Skel Monsta gets you.



#14: Difficulty: ***
This one's actually not that hard if you follow these steps.



RETRO



1. Take care of the Mighta that falls beside you.



2. Three Monstas will descend from above. Watch carefully so they don't land on your head, and when they get to your horizontal level dispose of them.



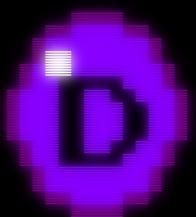
3. The other Mighta will attack from the right now; get it first.



4. Be patient. After a few seconds another Monsta will descend from above. Again, make sure it doesn't hit you on the head, and bubble & pop it when it's in line.



5. Finally, a single mad Monsta will be bouncing crazily around the screen. It won't be hard to defeat on its own, but if you've been quick, the special item might still be around, and it could be something fun like a Red Cross, allowing you fry the last enemy with fireballs.



RETRO



#15: Difficulty: **

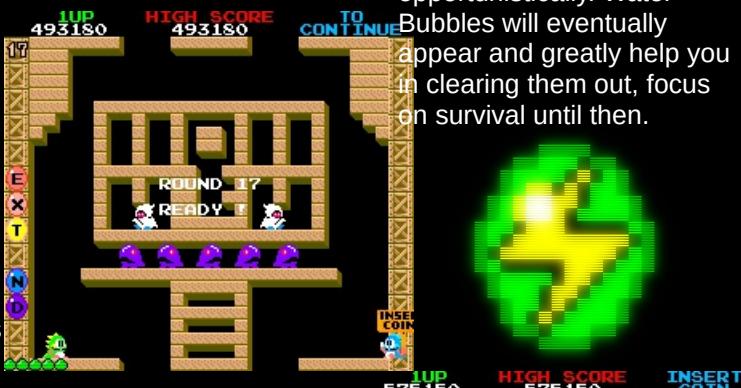
Try to bubble all three of the enemies in the middle first, and pop them all before moving on to the top. If one escapes back into the middle room, just re-bubble and pop it. If one of their bubbles floats up and out, don't panic, just get it as best as you can. Be careful with entering the top chamber, jumping from below. Wait for an opening then bubble them all quickly. The special item appears in the top chamber, and is sometimes a Potion. One thing you might consider doing is farming Water Bubbles, which tend to aggregate in the top-right of the screen. If you get stuck in the top before clearing the rest of the board, the flows from the Water Bubbles is your ticket out.



#16: Difficulty: **

Start out quickly, before the enemies activate, by killing the center Monsta as it falls into place, then jump onto

the left-hand, single-block platform. As long as you keep shooting left, you're safe here. Bubble the Monstas as they enter range and pop them quick. Repeat for the other side when it's safe, then go up and take care of the last two trapped in the middle of the screen. There is a high chance of a good special item on this board, and it could be an Umbrella. It'd be very nice to skip the next three levels....



#17: Difficulty: **

Do it step by step. First, take care of the Monstas coming up from beneath your starting point. Try to get as many as you can from this perch. When it looks safe, fall and wrap around to the top, which is a good place to bubble Monstas. Watch out for the two Mightas; the only way they can escape from the middle is by jumping straight up, so be ready for them when they do. Don't worry about the special item, appearing in the middle chambers, unless it's really good.



#18: Difficulty: ***

Be very careful here. Try to get to the top of the screen along the side. Bubble Zen-Chans, which should be moving pretty fast now, opportunistically. Water Bubbles will eventually appear and greatly help you in clearing them out, focus on survival until then.



#19: Difficulty: ****

Argh! They put this one right there, one level before your goal! It might be a good idea to save-state at the beginning and practice this one.

you, so that you both bubble and kill it in the same frame. If an enemy is in a locked-off chamber, this can be the only way to kill it, by jumping straight up beside it and "kissing" it as you pass by. It's actually not that hard if the enemy is still, but precise movement is necessary.

First off, you're completely safe from the Monstas in your starting chamber, but the time limit on this level is a bit short so you've got to focus on killing the many enemies here. The first thing I do is "kiss" the Monsta above while it's still in the start-of-level paralysis. Then retreat back into your starting chamber and bubble/pop Monstas that come to you. I like to stand in the low-ceiling'd opening, where you're both safe and able to blast arriving Monstas. You can care of a good number that way.

When your easy kills run out, fall *straight* down from the ledge, wrapping around, and land on top of one of the walls between



A good way to start Round 19 is by giving the "kiss of death" to the left-most Monsta, before it activates. It's a skill you must master for later levels!



the narrow shafts. You absolutely do not want to fall into one of those, as they are inescapable. Instead, after bubbling any remaining enemies that approach up there, leap right and fall into the wider middle shaft.



This is where you want to be, because the Lightning Bubbles that float into this level tend to gather there. You can pop them and use the horizontally-emerging lightning to kill enemies as they pass by at that elevation. The timing is tricky to master; there's about a second between popping the bubble and the lightning coming out. Remember, it always emerges going the opposite direction as you're facing! Play this one cautiously, you're almost there!

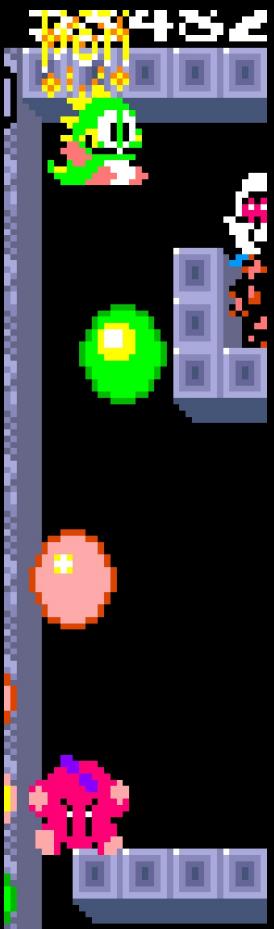


#20: Difficulty: ***
If you enter this level and haven't died yet, then the special item here will be the gate to the first Secret Round; reaching that is not only a great achievement in itself but worth over 300,000 points. It's also got pretty dang awesome music and graphics! Even if you die here, the gate will appear, but you have to get to it before it disappears.

One issue is a new enemy type is introduced here, the Pulpuls that appear in the middle of the screen. They fly like Monstas, but they move in a more gradual, wavy pattern left and right while slowly ascending or descending. In a large area like this they're not that hard to handle. Bubble and pop them quickly. When they're out of the way you can focus on the other problem: the gate appears at the top of the screen.

There's two ways up there. The first way is to bounce on your own bubbles as they ascend the side of the screen. It's not that hard to do really: blow some bubbles so they hit the side wall, then jump on top of them while keeping the jump button held. As long as you keep holding Jump, you'll leap up off the bubble instead of falling through and popping it. As the bubble rises, you can keep rising up with it, and land on one of the upper ledge blocks when you get there, just watch out for the Mightas lurking at the top.

The other way is to pop one of the Water Bubbles



Bouncing on bubbles is an essential skill for later levels. Keep the jump button down here and you can keep jumping on the bubble. Practice helps!

emerging from the bottom and let it carry you through to the top. The issue there is, the water won't wrap back around to the top of the screen, leaving you vulnerable to the Mightas that are up there. Be careful if you take this route; bubble the Mightas as soon as you can, or immediately leap into the gate.

Remember not to kill the last enemy, or the gate will disappear! Leave it bubbled, and get to the

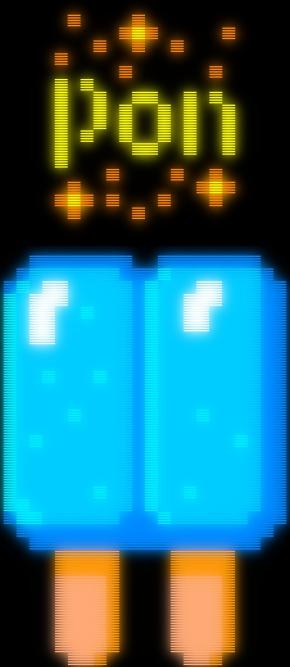
gate. Also note, the gate will disappear immediately if the level enters Hurry Up.

If the unexpected happens and an Umbrella warps you past Round 20, don't despair! The Silver Gate will appear on the next level you play. The levels immediately after 20 are relatively easy, so this may be for the best.

Then, if you make it....

Sources

The best source of information on the game on-line is the excellent resource The Bubble Bobble Info Page, by Stephen Tjasink and Paul Rahme, at: <http://tjasink.com/games/bb/>. That page hosts a FAQ written by Chris Moore in 1998 that reveals the game's algorithm for generating special items: <http://tjasink.com/games/bb/bb-stuff.txt>.



RETRO



If all goes well and you made it to Round 20 without dying, then the special item for that stage will be the Silver Gate. Collect it, and you end up here.

There's a lot of weird things about this room, some of which are outside the scope of this article. (Try waiting for Hurry Up sometime and see what comes to get you instead of the Skel Monsta.) In game terms, you get 360,000 points in gems, you skip the next round, and you get a look at this mysterious mural in the background art:



The Silver Gate



Mysterious Statue



Whatever could that mean? It turns out these symbols are a code hiding a secret message for players who happen to get here. The key is in the top line, which is the 26 Latin/English letters, written out in what's called the *Bubble Alphabet*. It looks hard at first, but with practice it's possible to read messages written in it without great effort. Most of the letters are just flipped or rotated. See if you can figure out what it says. The information given here is not important; it's just telling you that to win the game and get a "Happy End," you have to make sure to finish in two-player mode. But these screens have another purpose, to teach you how to read Bubblish. When you do win the game, there's another secret message for you, and it'll help a lot if you can already read it when it appears....

Bubble Bobble hides secrets even greater than this! Can you reach Round 100 and defeat the Super Drunk, and decode the message found after? I wish you the best of luck on your journey through the cave of monsters!

OTHER SRPP'S TO TRY

Bubble Bobble is the most famous and most popular of the genre I've called "SRPPs," games where you're in a single room (usually just one screen in size), and, using your platforming skills, must clear all the enemies before heading to the next room. In the classic form of the genre, you have some distinctive means of attack for clearing out your opponents. These games very frequently have a large number of levels, usually 50 or more, and two-player co-op modes.

What isn't a SRPP? Joust and Balloon Fight aren't, because they're not platformers. The original Mario Bros may be an early example, but it's borderline because its levels all have the same layout. And Solomon's Key isn't about defeating the enemies.

What is a SRPP? These games, which are all originally arcade games unless otherwise noted:

Bubble Bobble's predecessor Chak'n Pop

Bubble Bobble, Bubble Bobble Part 2 (NES), and its direct sequels Bubble Memories and Bubble Symphony. Also, its storyline sequel Parasol Stars. Note however that its first arcade sequel, Rainbow Islands, is not an SRPP, because it's not about defeating all the enemies, and it scrolls up! And Parasol Stars, while an arcade-style game, never got an arcade release

Bubble Bobble's sibling games Fairyland Story and Don Doko Don, also made by Taito

Toaplan's Snow Bros, and its weird sequel Snow Bros 2 With New Elves

Jaleco's RodLand

SNK's ZaPaPa

Mitchell's Pang, aka Buster Bros, and Funky Jet

Data East's Tumble Pop and Diet Go Go. Also Joe & Mac Returns (unlike the original Joe & Mac!)

Subsuno's Penguin Brothers

Irem's Yoyo's Puzzle Park for the Playstation

Riot's Pop'n Magic for the PC Engine

NEC's Chip Chan Kick for the PC-FX

Kaneko's Wani Wani World for the Mega Drive (aka Genesis)

More recently, there's Cowboy Color's Handsome Mr. Frog for PC on Steam (see the Indie Mines section of this issue) and Whip! Whip! for PC on Steam, and Switch.

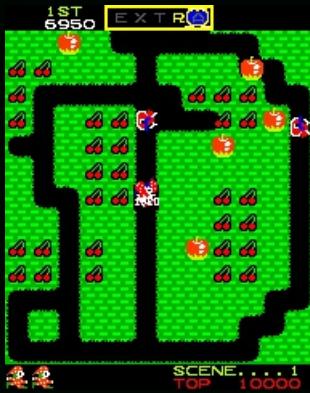
Thanks to brandon (@eryngi777), @zarawesome, and Misandrist Stache (@totesmcduck) for suggestions for this list. An old NeoGAF thread (<https://www.neogaf.com/threads/bubble-bobble-genre.325955/>) provided more suggestions.



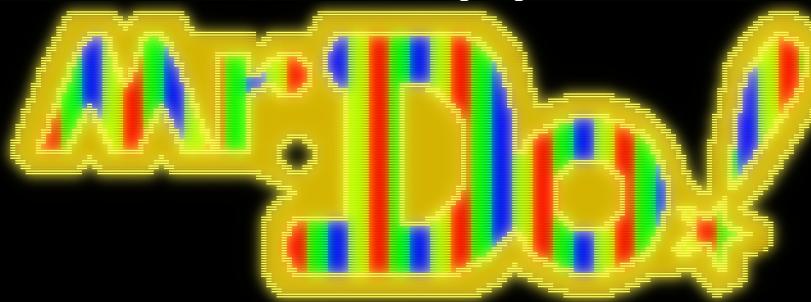
Arcade Classics: Much A-do About Mr. Do!

You're Mr. Do, the charismatically-named clown. You've forsaken the circus for digging out cherries, for some reason buried underground, but are being chased by the dinosaur-like "Badguys." Your main weapon against them is the potent Powerball, here unrelated to lottery, and instead a bouncing weapon of destruction. Your other weapons, scattered within each candy-like cavern, are apples, which can be pushed side to side and dropped on bad guys for big points.

Once in a while the Alphamonster emerges from a pen at the top of the screen, bearing across its chest a letter in the word EXTRA. Killing this awkward-looking foe awards its letter; completing the entire word immediately ends the board and awards an extra life. If all of this sounds bizarre, well, you must be new around here.



Each board is a side-view collection of tunnels, like an ant farm, or Dig Dug. And like Dig Dug, Mr. Do has the power of digging, able to create new tunnels just by moving into them, with only a small penalty to speed. And, also like Dig Dug, the tunnels are laid out on a grid, and Mr. Do's movement is confined to it. Unlike Dig Dug, enemies cannot escape the grid or tunnels, even when in



"angry mode." Instead, if the Badguys get impatient enough, they turn blue and become able to dig their own tunnels.

As shown by the fact that the easiest way to describe the game is "it's like Dig Dug," Mr. Do! (with the exclamation point) has long laid in the shadow of Taizo Hori's premiere game. This is a tremendous shame however. While Dig Dug is, indeed, a great game, I am here to boldly claim that Mr. Do! is, in most ways, its superior. The gameplay has much more variety, the strategy is much deeper and levels are much less susceptible to patterns. Indeed, it is one of the

deepest games (pun not intended) of the classic arcade era, with many possible strategies.

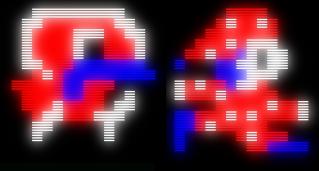
The game is also much more complex than Dig Dug. I am not someone who will tell you that greater complexity always makes a better game; on the contrary, it often means it's worse. Still, after playing Mr. Do!, it's difficult to play Dig Dug and not conclude

that something seems missing. Allow me to explain the game, then try it yourself and see if you do not agree.



Cherries

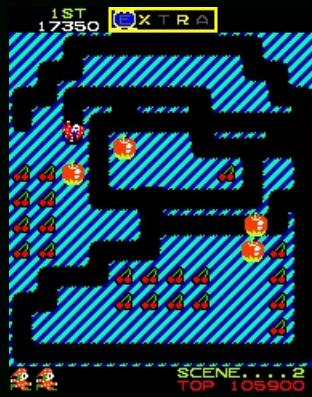
Each level of Mr. Do! consists of a layout of pre-dug tunnels. Unlike Dig Dug's, however, they don't form disconnected pockets of air but form a network of starting paths. This is important, since at the start of each level Mr. Do's foes can only travel where



there's a path.

Scattered around, always in 2x4 grids, are five sets of Cherries. The most obvious way to clear a level is to collect all the Cherries. As you pick them up, so long as you get them in sequence, without a pause between, there is an ascending musical tone with each acquisition. If you can play a whole scale like that, you get a bonus 500 points, in addition to the 50 points you get per pair of Cherries, for 900 points in all. So, if you manage to do that with all the cherries, you get an easy 4,500 for the board.

You could stick with that and probably have an okay game, but chasing Cherries will only get you so far. As you become more experienced with setting up Apples and killing monsters, it will eventually become clear that collecting Cherries is a sucker's game. Not only can you get more points through other





means, but frequently it's easier too. You'll tend to fall back on Cherries as a panic solution, something to go after if the enemy gets overwhelming.

One interesting fact is that the Badguys can collect Cherries too, making Mr. Do one of only two games I can think of where, if the enemies get sufficiently fed up with your presence, they'll finish the level for you, just to get you out of your hair. (Can you name the other one? A hint: it was made by Atari.) This is not the only example of Mr. Do's amazing attention to detail.



Badguys

These red monsters are your main opponent. Six emerge in the first two levels, after that eight will come out after you. They always appear, from the center of the board, in pairs, one appearing closely followed by a friend. They give you an alternate way to clear a level, in that it ends after you either get all the Cherries or kill all the Badguys.

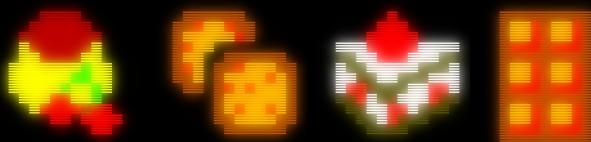
At the start of a board they tend to act a little aimlessly, but the longer the level continues the more aggressive they become. Ordinarily they stick to the paths that are already dug out, either pre-existing or clown-made, but as their rage increases they gain the power to turn blue for short periods. While blue they're called Diggers, due to the fact that they can make their own paths during this time. They always freeze and flash for a moment before digging, giving you a little bit of warning.

As you progress to harder levels, the Badguys will start each board madder than the last. After a few boards they'll start trying to track you down from the beginning, and soon they'll start digging after our hapless hero almost from the start. Pac-Man is relatively sedate by comparison; Mr. Do means business.



Apples & The Powerball

Your primary weapon against the foes is the Powerball. Pressing the Powerball button causes it to launch into action, fired ahead of your clown's position and bouncing back and forth across the corridor ahead of him.

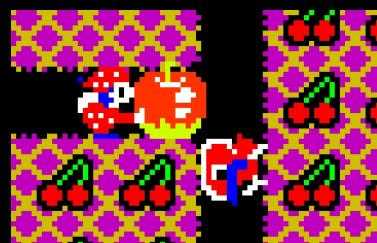


The Powerball is an awesome weapon; it immediately destroys any enemy it touches, but unfortunately that destroys the Powerball too. Mr. Do will eventually generate a new one, through mysterious clown processes, but the amount of time it takes to happen is variable. The first regeneration is nearly instantaneous, but as you use the Powerball over and over, the next ball will take longer and longer to appear. Also, while the Powerball's motion is predictable down a straight corridor, sometimes corners cause it to double back, and branches can cause it to get lost, bouncing around randomly in some distant corner of the board. Mr Do cannot generate a new Powerball while the old one still exists, and while it'll eventually expire on its own, your now-defenseless surrogate will probably not survive until then.

The first couple of Badguys are pretty easy to dispatch via Powerball, but the more you use it, the longer it takes to regenerate. Thus, it is good to try to use Apples to crush Badguys in order to reduce the total recharge time. Apples are much like Dig Dug's rocks; they come into play once you dig the soil out from beneath on and move away a tad, they both fall until they hit solid ground and can smash through thin walls of dirt, and they can kill Mr. Do too if he unwisely fails to escape it before it falls. If you instead manage to crush enemies with an

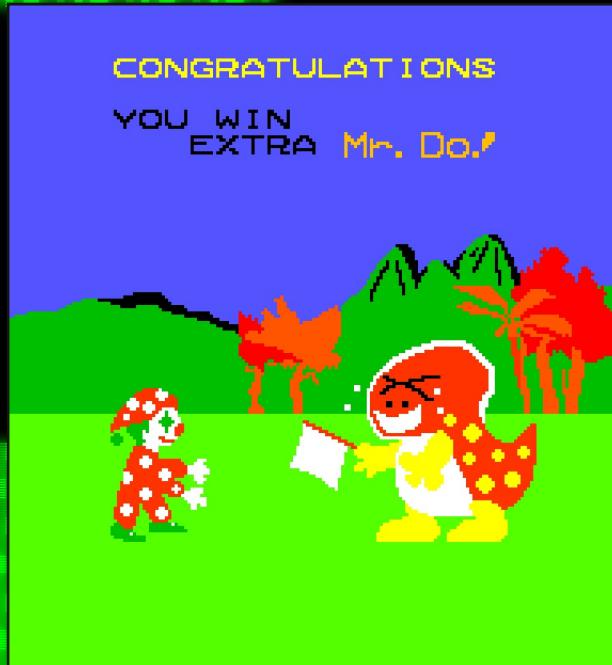
apple, you get more points the more you crush, up to 8,000 points if you get five or more at once.

One difference between Dig Dug's Rocks and Mr. Do's apples is that apples can be shifted left or right by pushing them. You can even push them through the dirt this way. This is the means of a powerful strategy, which I will mention later, but in the meantime, beware, because Badguys can push apples too, and take a great joy in shoving one over on top of you as you try to get away. Also, while Apples shatter if they hit another Apple or the bottom of the screen, they can fall distances of one space and, provided they don't kill an enemy, survive the fall.



Essential Strategy #1: Apple Traps

While Apples can be pushed, they still block movement. This is the basis of an extremely useful trick, where you block off a vertical passage by pushing an Apple so that it slightly hangs over it, but not far enough to fall. If a Badguy tries to chase



Mr. Do up such a passage, it'll be blocked by the Apple, and frequently, instead of trying to find another path, will just wait there. Then the player can either leave it alone, as it'll usually be stuck there until it decides to start digging, or push the Apple over to crush the monster. Often in the early rounds several Badguys will cluster in one spot that way, giving the player an opportunity for big points. Even in later rounds where Badguys start digging



nearly immediately, they will often dislodge the Apple by their excavation, crushing themselves.



Munchers and Alphamonsters

Badguys are the most common opposition, and clearing them out finishes a board, but there are two other kinds of foe that can turn up. When all the Badguys have emerged, their spawn point is replaced by a prize, a food item of some sort, in the tradition of Pac-Man, Dig Dug, Lady Bug and other arcade maze games.

Collecting it is worth a score bonus, but more importantly freezes all the Badguys in place. From the top of the screen then emerges the Alphamonster and an escort of three Munchers.

It's called an Alphamonster because it's got a large letter on its chest. Usually through the game, the Alphamonster rests in its pen at the top of the screen, which contains the letters E-X-T-R-A. It cycles between the letters periodically, but it lingers much longer on letter that haven't yet been collected. When the prize is grabbed, the Alphamonster's letter will be whatever it was standing on at the time.

Collecting the prize is an important milestone in each board. It freezes the Badguys in place, for one. They're still deadly to touch, but will not move while any of the Alphamonster's Munchers remain alive. They're sitting ducks during this. Second, and more subtly, it resets the Powerball recharge period to minimum. If it's currently charging it'll still take a while, but the next time it's fired, it'll recharge immediately. This gives the player a good chance to obliterate the last few Badguys while they're helpless.

But even more importantly, this is a chance to kill the Alphamonster and earn its letter. If you can get all five letters in EXTR-A, you both immediately clear the current board and score an extra life. This is the only way extra lives are given



out in Mr. Do, so earning letters is important to having a long game. You even get a fullscreen, scrolling cutscene when this happens, a surprising thing to encounter in an arcade game dating to 1982.

The problem with just sniping the Alphamonster with your recharged Powerball is its Muncher entourage, which are fully mobile unlike the Badguys and move faster and faster the longer their ward survives. They are also immune to the blocking Apple trick; they eat any Apples they come across! They never dig new passages like the Badguys, but they always take the shortest route to get to Mr. Do to clean his clownish clock. The Alphamonster usually tags along, taking up the rear, meaning to shoot it the player will have to get around its three Munchers. With practice and a prepared area, you can pretty easily do this by digging tunnels. Refer to the sidebar for effective



from the Alphamonster itself, raising strange questions about their biology.

Diamonds

Yes, there is still one more game element to explain! Once in a great while (one in every 512 Apples dropped under normal settings), a shattered Apple will open to reveal a Diamond. This is a momentous event, signaled by the game's music cutting out, replaced with a high-pitched alert noise. Often this is so startling as to cause the player to mess up immediately.

If the player can collect the Diamond, he immediately earns 8,000 points, clears the board (yes, again) and wins a free game, making this one of the very few arcade games willing to award extra credits to players without coindrop. Being such a huge award, players have formed theories over time as to how to trigger Diamond appearances, but it turns out they're all wrong. Don Hodges, of donhodges.com, looked at Mr. Do's code and managed to figure out that Diamond appearance is purely a function of the game's random number generator. The only way to increase your chances of finding a Diamond in normal play is to drop lots of Apples, as each drop is a 1/512 chance.

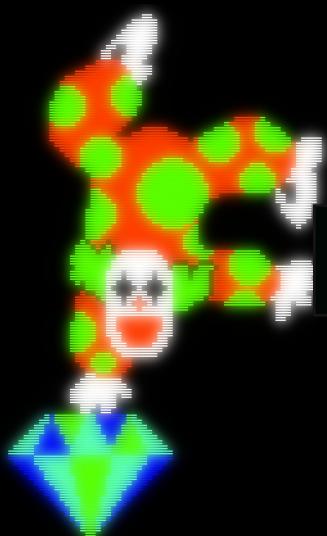
Enemy UI

Unlike Pac-Man, where the ghosts each have a simple

Muncher avoidance strategy.

Note, by the way, Munchers and Alphamonsters killed via Powerball turn into Apples. Also, if you kill an accompanied Alphamonster, any Munchers left at that point immediately turn into Apples. Be careful that you don't get crushed.

Additionally, every 5,000 points the player scores, a "naked" Alphamonster will emerge if one isn't already out. This one doesn't have any Munchers around it, and it doesn't freeze the Badguys. This one is usually easier to zap with the Powerball to earn its letter. By the way, if the prize is collected while a solitary Alphamonster is active, it'll still begin the Muncher phase; the Munchers will emerge



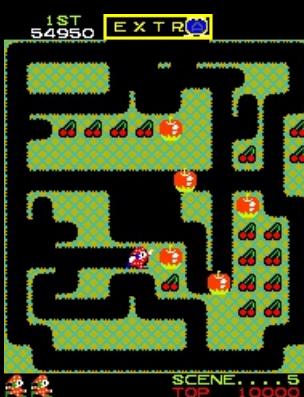
calculation they perform to make a best-guess as to how to chase you, Mr Do! relies heavily on pathfinding to get the enemy monsters after you. Everything that follows is conjecture on my part, based on observations from playing hundreds of games.

Badguys (six in the first two boards, eight every level thereafter) emerge, two at a time, from the center of the board. At the start of a board there's a period where they don't track you down very persistently. This is most noticeable on Board 1. One purpose of this period, in the design, I think, is to vary enemy placement. Since all the Badguys come from the same place, if there is no variation or randomness in their movement, they'll all follow the same path to try to catch you. Some randomness keeps them from clumping up on top of each other, and also means you cannot absolutely predict their movements.

When the Badguys decide to get serious in their chase

gets earlier in each board. In advanced levels, it's almost immediate. A closely-pursuing Badguy is very difficult to shake; you can't even Powerball it reliably, because you have to reverse direction to fire towards it, and that might put you right in its clutches.

One thing you can try is running horizontally beneath an Apple. Badguys have a quirk where, if there's an Apple above it dislodging or falling, they panic, running back and forth. This means sometimes the Apple misses it, but it usually takes most of



them out, and more importantly, it gets it off your back. This doesn't always happen though, especially on the faster boards or if the Badguy is right behind you.

Care should be taken when doing this. If you drop an Apple only one space it won't break, and if your route then takes a downward turn it's possible for pursuing Badguys to push the Apple down the shaft on top of you!



When the board has been going for a little while, the Badguys start digging after you. They are indiscriminate about this, and will sometimes crush themselves with Apples they themselves dislodged. One strategy for very advanced boards (beyond 10) is to wait above a highly-placed Apple for Badguys to burrow up into it, causing it to fall and crush both it and pursuers.

A good way to handle Munchers is to dig a long tunnel parallel to the route they'll take to reach you. When the Alphamonster, trailing behind them, passes by, poke into the

adjacent tunnel and hit it with the Powerball. This relies on the fact that Mr. Do can actually slightly extend through a thin wall without digging through it, and even shoot the Powerball on the other side of it without breaking through the dirt. Once you get practice with this, you can fairly reliably get two or more extra lives a game. One thing about this trick, though, is you have to do it before you kill any of the Munchers. If a couple of Munchers die, the Alphamonster gets cowardly, and instead of following its guards will try to get as far from you as it can.

The big problem with Munchers is that they eat Apples, and frequently even devour Apples in the process of falling on top of them. The Alphamonster can do this too. They can only do it if they're facing the Apple, but because you usually dig up to dislodge it, and they're chasing behind you, frequently the Apple will just fall into their mouth. There is a trick you can do however, a "trap" that can be used to crush Munchers for a lot of points. It's hard to describe here; the longplay listed in sources features it a lot. See the sidebar illustration; the w^w it's done, the Apple falls beside you, from where y immediately push it atop i chasing Munchers. If you time it right, they'll all be facing to the side when it hits, and get crushed.

As mentioned before, every 5,000 points an unguarded Alphamonster emerges.



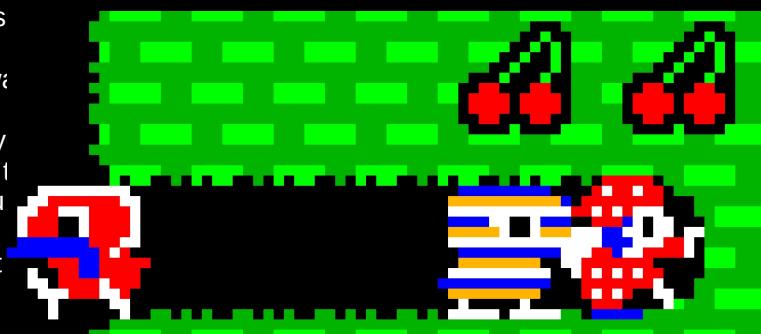
Munchers always take the shortest path to get to you, with the Alphamonster following behind them. Try to dig a path so that you can circle back to the Alphamonster. Then snipe it by firing the Powerball through a thin wall.

Unlike the guarded ones, this one will only spend a limited time on the board before it returns to the pen. The more times you've spelled EXTRA in the game, the less time it'll wander around before escaping. If you've spelled it twice, it'll only emerge for a few seconds!

Essential Strategy #2: Digging Delaying

The pathfinding of the Badguys is heavily dependent on the grid-like nature of the board. The fact that Mr. Do can dig a tunnel halfway between grid points is a thing the

enemies sometimes have problems with. If you dig a tunnel halfway and rest in the hole, the enemy dinosaur will see the half-finished tunnel and think it can't reach you. It'll probably start digging immediately (even on Board 1), but the thing is, it takes a half-second for a Badguy to transform into a Digger. In this time, you can complete your tunnel forward, past the center grid point, and make another halfway tunnel beyond it. When the Digger finishes digging, it reverts back to



The grid that is the game's basis is invisible, but Cherries and passages are centered on it. If you can rest Mr. Do while digging a passage halfway between two grid points, Badguys will have to turn into Diggers to get you. It's hard to know where that is, but with practice it's a reliable way to escape pursuit.

RETRO

normal, then advances to find the same situation, whereupon it'll become a Digger again, and again wasting time.

This may be the one skill that most separates the Mr. Do's from the Mr. Don'ts. It takes practice to make consistent use of this, because most of the board patterns don't make it immediately obvious where the gridpoints are. Using predug tunnels, Cherries and unmoved Apples, all of which are centered on a grid point, helps a lot, but are ultimately no substitute for muscle memory. On very advanced boards, Badguys move so fast that a normal digging escape may accidentally be enough to trigger Digger delays consistently.

The Boards

Mr. Do! has ten boards that cycle. Whimsically, except for the first board (which is shaped like a period and a capital D), the other boards are styled after the trailing digit of the round counter. Round two is shaped like a bit number 2, round three looks like a 3, and so on. After boards three, six and nine in each set of ten there is a short intermission summarizing your progress; after round ten (the "0" board), you get a screen saying "Wonderful!" This pattern continues

throughout the game.

Here are the ten boards. Note however that the Cherries and Apples are placed semi-randomly each time you play a board, so they may be in different places than pictured below:



#1 ("Period-D"): At the start of the game, go left, dig a tunnel up to the side of lowest Apple, then cut beneath it so it falls one space. Then push it slightly overhanging the vertical shaft you dug, making an apple trap. You should easily be able to kill five Badguys with it, earning you the maximum 8,000 points. That'll trigger an Alphamonster, which you can get with the Powerball, then grab the prize for another Alphamonster. Use the Muncher strategy to kill this second Alphamonster, then wipe out any remaining Badguys with either your recharged Powerball or other Apples. There, already 2/5ths the way to your first extra guy! You might even be able to break 10,000 before the end, to get another fifth the way there.



#2: If you killed the last Badguy with an Apple on Scene 1, there might be an Alphamonster wandering around the top of the board at the start. The board is arranged as a single long tunnel with a bulge in the middle around the enemy spawn point. Often you can send the Powerball down such a tunnel, long range, and be reasonably certain it'll connect with its target; it might be worth it to do this to earn another letter. We're still in the early levels, so a combination of traps and Powerball use should be enough.



#3: Most levels now settle into a kind of pattern, where you make an early trap at the bottom of the board, wait a bit, maybe collecting Cherries, while enemies accumulate there, then push the apple onto them, then head to the top to do it again.



#4: This is a "loop" board, where a trap using one of the natural tunnels won't work so well because

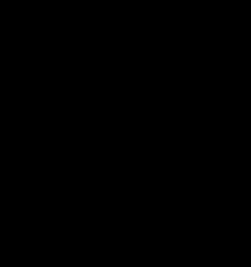
Badguys can approach from above the Apple. The difficulty is starting to pick up here.



#5: That place on the left of the board, the stem of the big numeral "5," is usually a prime place to set up a trap. Lookout for trap-spoiling, wandering Alphamonsters though.



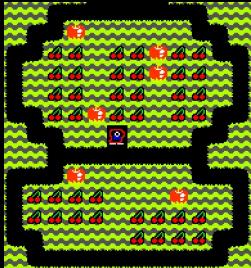
#6: Similar to #5, use the top, vertical part of the 6 digit to set up a trap.



RETRO



#7: Difficulty increases again. Set up traps using the lower apples, then dig up and try using the right-hand side of the 7 for another one.



#8: This and the next two boards are loop-like. The Badguys are getting quite fast here.

Further play: I can usually reach around board 11 or 12, but some players are able to play indefinitely. Their strategy for high-advanced boards seems to be, to make an early trap in the bottom half of the screen on one side of the

board or the other, then dig up and try to maneuver so Diggers, which emerge very early in advanced boards, dig upward into an Apple and crush themselves. Surviving very far seems to rely on using the Digger Delay tactic described above.

That's about all I can offer. Good luck, intrepid jester! Try not to soil your clown whites with all that dirt you're shifting.

Trivia

The music that plays behind the cutscene when you earn an extra life, in case you don't recognize it, is the Astroboy theme song. I don't know why it's here.

One interesting thing about Mr. Do!, that shows its great attention to detail, is that, in isolated instances, it's possible to "survive death." If your clown gets caught by an enemy, most of the game stops while the death animation plays. However, any Apples dislodged or falling at that point continue their course. It's possible for one of those to kill the last Badguy on a board before the death animation

finishes. If that happens, *you don't die*, but instead you finish the level, and keep that life!

GamingHistory credits Mr. Do! as the game that kicked off the conversion kit industry, where instead of buying a whole new machine for each game, an operator could just change out the innards and apply new art to the cabinet.

Mr. Do! was released by Universal, a company that, like Exidy in the US, had a small number of sleeper classics that don't get a lot of press today. Universal, as a company, still exists; they're in the resort and casino business, and currently even use their old logo. Mr. Do! had a port for the Colecovision, a wonky one for the Atari 2600, and a fairly late one for the SNES, but its most recent release was for the Wii's Virtual Console Arcade--although, sadly, in Japan only.

Mr. Do! would end up with four sequels with varying levels of depth and quality. Mr. Do's Castle is a bit like Universal's early title Space Panic; Mr. Do's Wild Ride isn't great; Do Run Run is pretty good; Visco's Neo Mr. Do!, for the NeoGeo arcade

WONDERFUL !

hardware, while pleasingly weird, isn't nearly as good as the original game.

Sources

GamingHistory has a good backgrounder on the game's history: <https://www.arcade-history.com/?n=mr.-do&page=detail&id=1684>

Amazing play! A nearly 4M game on YouTube, lasting over two-and-a-half hours: <https://www.youtube.com/watch?v=av7Haht2T4>

The Diamond generation odds were discovered by classic arcade game code diver and secret finder Don Hodges, and can be read on his website at http://www.donhodges.com/mr_do_diamond_trigger.htm



RETRO



1ST
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E X T R A

CONGRATULATIONS

YOU WIN
SPECIAL
ONE MORE
GAME

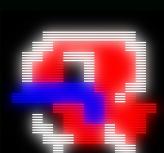
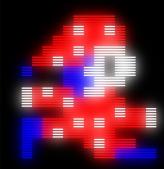


UNIVERSAL

CREDIT 1



SCENE....6
TOP 10000





The Indie Mines

One of the advantages of digital publishing, at least for PC platforms, is that once a game has been published, it's likely to be around for a while. Steam's been around long enough that there's a good many older titles there, put out by indies, that might have escaped your notice.

The Indie Mines is our attempt to show you, not the latest releases, which already get most of the buzz, but interesting older games that you may have missed, and may be available at a discount or in a bundle. We do not provide negative reviews, figuring that, for bad games, obscurity is punishment enough. We aim to tell you enough about a game that you can decide for yourself if you'd like it. Let's go!

Handsome Mr. Frog

Released August 2016 by Cowboy Color for Windows. \$0.99 on Steam (<https://store.steampowered.com/app/508990/>)

Handsome_Mr_Frog/) and itch.io (<https://cowboycolor.itch.io/handsome-mr-frog>).

Earlier in this issue I brought up the phenomenon of SRPPs, Single Room Platformer-Puzzlers, which for a short time were pretty common in arcades. You might include Joust in their number, but the iconic star of the genre is Bubble Bobble. Most of them are games where you (or you and a friend, for many of them are two-player co-op) have a character in one of many single-screen levels, and are given a distinctive means of attack with which to defeat a number of enemies. The properties of the attack are crucial to this kind of game, and mastering it is essential to your success.

SRPPs are a game of an era, little-seen before or after, a genre that had a brief time in the sun and now are largely gone. Handsome Mr. Frog is Cowboy Color's attempt at

reviving this now-obscure game type. While not extremely long, for 99 cents it's difficult to go wrong with it.

So. You're a vain, but charismatic, frog, who's been annoyed by a bunch of animal guys. You progress through a series of single-screen levels, divided into worlds of four levels each, each in turn consisting of four waves of enemies. Each wave (at the beginning at least) is made of 2, then 4, then 6 and 8 enemies. Clear out all four waves and the door to the next level opens up. Each level's layout is chosen from a random selection for that world, and some are harder than others. Each world has different enemies and level selections. If you go through all four worlds you cycle back to the first, but with lots of enemies in each wave. You keep going through the waves, levels and worlds like this until you run out of lives. It's a very pure arcade design, in that way.

Like most SRPPs, you have a unique attack with which to defeat the opposition, and here it's using your long froggy tongue. A press of the X button sends it rapidly shooting out, with a range of nearly half of the screen. Any enemy it comes in contact with is engulfed, Kirby-style, into your mouth. You don't have Kirby's ability to swallow foes to dispose of them that way, however; to ultimately defeat the encased enemy, you must spit it out so that it strikes another enemy. If it doesn't hit a foe it'll keep going; if it hits a wall, it falls to the ground and revives, while if it goes off-screen it'll wrap around. The properties of that weird nowhere space, "off-screen," are interesting in this game, and I'll get to those in a moment.

Helpfully for a game where you use enemies to hit other enemies, they're all generated in pairs. Struck enemies fall off the screen, in the traditional Mario style, but on their way out, if they hit other enemies, they too





are considered defeated, and you earn extra points for this. This means that it's possible to end up with single enemies at the end of a level; to make up for this, every level also contains at least one indestructible box object. You can slurp up a box and use it as a projectile, and it'll never get used up. Also, whenever you defeat an enemy, a bubble is generated with an item in it, which can be worth points, a one-use fireball attack, or, rarely, other things like unlockable headgear or extra lives.

Enemies all enter the board from one of two spawn locations, and they immediately start running following a simple AI. Some enemies react to your location, while others will just run heedlessly, bouncing off of walls. When an enemy animal runs off-screen, it disappears. This is unlikely everything else in the game: you, bubbles, fireballs, boxes and even launched enemies all wrap around the screen, but not unshot enemies. Instead, they re-emerge from the top of the screen at a later time. Enemies reborn like this may even generate as a different kind of opponent.

This could be either good or bad, as typically a level has two kinds of animal foe, a stupid one that just runs and bounces, and a smart one that has a strategy to catch you.

You start out with ten lives, which may seem excessive at first, but the game is fairly hard. The enemies move quickly, to the extent that they task your reflexes to treat them as individuals. I find the way to deal with the enemies is think of them, at least partly, as "flows." Depending on whether an enemy is dumb or smart, there are particular places in each level that are safer than others; they're out of the "flow." The best way to play is to take advantage of these spots, waiting in them and biding your time, until you can grab an enemy with your tongue, then wait until another runs by and hit it. Because of the simple AI, the areas outside the flow, the shores out of reach by the flood of enemies, are usually not hard to figure out, but are complicated a little by the "smart" areas, which usually have different flow patterns than the dumb ones and adjust their movement depending on where you're standing, and

the fact that enemies can collide with and bounce off each other, which can send one through an unexpected passage from time to time.

Handsome Mr. Frog is exactly the kind of game that would have, long ago, become a reasonable success for an obscure arcade manufacturer in the late 80s. It's a kind of game that is relatively hard to find these days, and which almost never see the success they're worth. That you can obtain your own copy of it, to play as much as you like, for the cost of just two arcade plays, is kind of miraculous. It is a deal that I urge you to follow up on.

Tumbleseed

Released May 2017 by Benedict Fritz and others, through aeiowu, for Windows, macOS, Nintendo Switch and PS4. \$14.99 on Steam (<https://store.steampowered.com/app/457890/TumbleSeed/>), itch.io (<https://aeiowu.itch.io/tumbleseed>), Nintendo eShop (<https://www.nintendo.com/games/detail/tumbleseed-switch>) and PlayStation Store (<https://store.playstation.com/en-us>)

product/UP2444-CUSA05538_00-TUMBLESEEDGAMEUS).

Homepage: <http://www.tumbleseed.com/>

The word is that it's often difficult for indies to make a living. For every *Undertale* success story, there's easily hundreds of games that fall through the cracks. Even good buzz from sites like RockPaperShotgun and prominent early presence on online console stores like Nintendo's eShop may not be enough to help games like *TokiTori* or *Trine* to become profitable.

A recent example of this is the game *Tumbleseed*, a clever and charming skill-based action game that's been in Steam for a year and a half now, and has since shown up for the PS4 and Switch. While the game has a lot going for it, it seems to have failed to find a significant audience. I am saddened by this, as *Tumbleseed* is quite a nice little pastime, especially for Switch owners, for which the game's two-stick control scheme seems tailor-made.

There is one overriding theme in every review I've seen for *Tumbleseed*, and





that's difficulty. Reviewers have fallen all over themselves to tell readers that *Tumbleseed* is a difficult game. Honestly? I don't see it. I've gotten through the first two "worlds" of the game, on the Switch, and have not really died all that often? I mean, I know I possess some of what I understand the youngsters have called "skillz," but I managed to make it through the first world (after which is a hard checkpoint) after dying only three times. It took more than that to get through world two, the Jungle, but a lot of that was from just discovering the properties of the enemies. (Useful facts: the big jumping monster and the snakes each take three "thorn hits" to dispose of. There, I've saved each of you two lives.)

After getting that far on the Switch, I came to the realization that I also had the game on Steam, so I went back and played it. In the process, I aced both of the first two worlds, so I can definitively say that this is a game where the skills you gain matter as you progress to later levels. There is a definite touch to the game, a way you have to adjust

both your fingers and mind to being successful at it. Even if you're used to games like *Marble Madness* and *Monkey Ball*, where you don't have direct control of your entity but supply momentum to it, you'll have to adjust to this. But this is a good thing; the process of getting better at *Tumbleseed* is that adjustment, and proving it against a series of progressively more difficult tests.

It might seem simple at first, but as you get further you encounter unexpected types of obstacles. Enemies, for instance, can be either avoided or attacked. There's a strong aspect of resource management here in the collection of crystals, which power your various abilities. After the tutorial you're left with four basic "modes" that you can switch between at any time, and can pick up more on each play, that give you various ways to spend your crystals, that do things like nullify some of the many holes on the landscape that you might fall into, or give you various kinds of attacks, or even simply set a checkpoint, so if you fall into a hole you don't have to go so far

back.

One of the keys to doing well is recognizing just what your seed's "hitbox" is, the part that must be kept from holes and enemies. The "eye" at its center seems to be the critical spot. Once you get used to that, you can squeeze through some surprisingly tight areas, and it always feels satisfying to do so. There's also a system of "challenges" you can attempt, three on each of the main worlds, so even if you have trouble making it to the end of a world you have another goal to try for. Completing challenges awards you with permanent powers that persist with you throughout all successive games, so even if the challenge level seems high to you at first, you can earn yourself some minor difficulty reductions as you go.

Even once you've finished the main game, there's randomized modes to play that you can play for high scores, including ranked daily and weekly challenge games to keep you playing. These have kind of become par for the course since *Spelunky* made such good use of daily challenges, but they are welcome additions

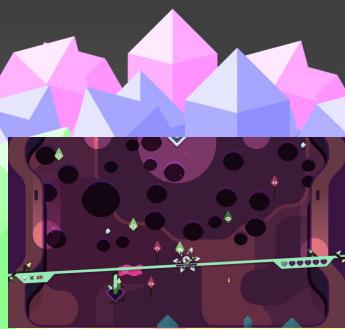
to this kind of game, which is unique and unlike anything else you might have seen.

Most of the game there's not a pressing to advance so you can take your time, but you can also play it for speed, which increases the challenge greatly. A couple of the optional challenges are a good introduction to playing it that way, which turns it into almost an entirely different game, one where a very fine level of control is required. I don't know if this will be to most players' liking, but it helps that playing that way seems to be optional.

I am left at this point at a loss for words. *Tumbleseed* is a fun game, but there's an ineffable quality to it, that's difficult to communicate. At its best it's almost contemplative. Give it a shot if you're looking for a good, skill-based challenge game, not insurmountable, but a good way to build up your skills, whether or not you pluralize them with a 'z.'

Nuclear Throne

*Released December 2015
by Vlambeer for Windows,*





macOS, Linux, PS4 and PS Vita. \$11.99 on Steam (https://store.steampowered.com/app/242680/Nuclear_Throne/), the Humble Store (<https://www.humblebundle.com/store/nuclear-throne>) and the PlayStation Store (https://store.playstation.com/en-us/product/UP1491-CUSA03902_00-PS4NUCLEARTHRONE).

Homepage: <http://nuclearthrone.com/>

Nuclear Throne is the best of the roguelike shooter games that I've played. It's not a genre I have a lot of experience with, it's true. I've stayed away from Binding of Issac, despite its popularity, for thematic reasons, so I cannot say much definitive about how that one plays. What I have heard is that the game can either be fairly easy, or hard, depending on what random powerups the game decides to grant you that play.

By contrast, Nuclear Throne is more stable in its rewards. There's a good variety of weapons, but none that I've seen, at least, are overwhelmingly

powerful (without tradeoffs, that is). The level gain perks are useful, but none will make or break your game by itself. The game does remain fresh for each play, though, because its level builder and enemy design are really good. In addition to the standard enemies, there are occasional "special" versions of a few, like the Golden Scorpion, that can appear even at early levels.

Often you'll find yourself dodging a lot of bullets, enough that it seems like maybe some kind of underworld type of place, but this is not a "bullet hell" game. Those are about maneuvering an on-screen surrogate with a tiny hitbox through bullet patterns that are largely pre-made. Nuclear Throne's fields of enemy projectiles are of the good ol' fashioned sort, aimed more or less in your direction, and your hitbox is unfortunately large. The skills of surviving bullet hell games are mostly memorization and execution; for a game where enemies aim at you, you must seek out cover, decoy enemy fire, and keep moving, not so much towards or away from your assailant but "across" from

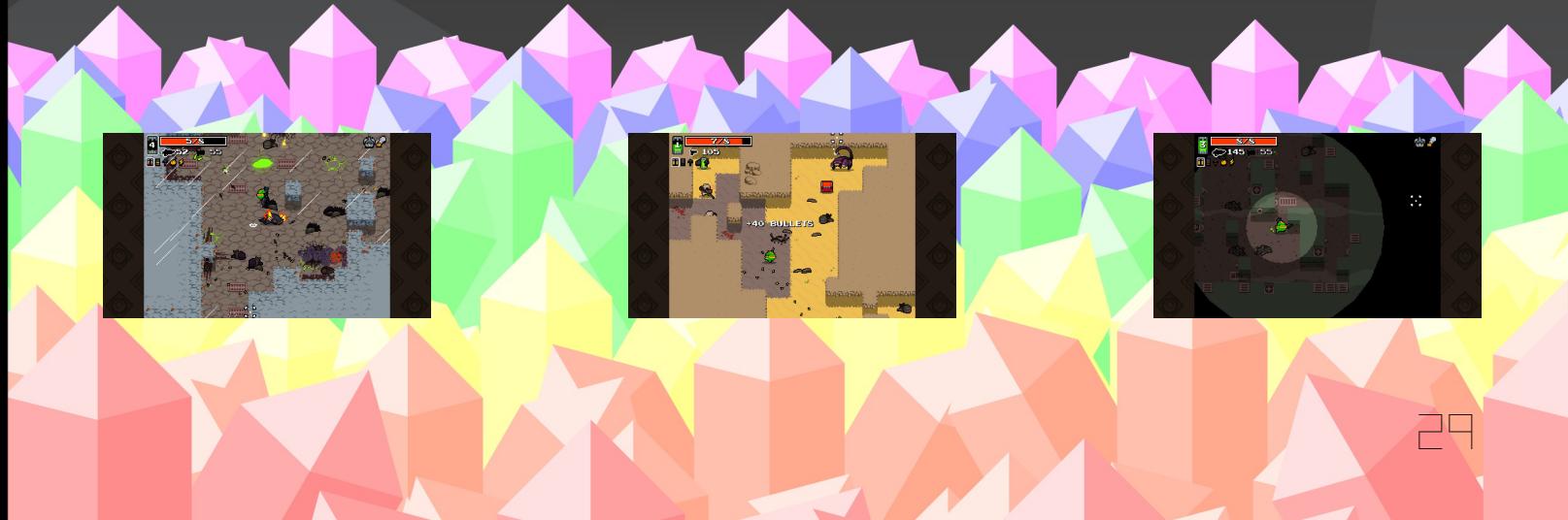
it. That, combined with the random areas and enemy assortments, creates a pleasingly large assortment of situations to test your skills.

One thing that Nuclear Throne gets right, that many games don't, is its sense of atmosphere. The music, a melancholy mix of guitar (both electric and acoustic) and harmonica, at odds with the cartoony art and pyrotechnic shenanigans that fill each level, is a particular standout. I would put Nuclear Throne's soundtrack up there with Minecraft's with how effortlessly it conveys tone. Each level begins with a tense piece that I think of as the *killing music*. Once most of the threats have been eliminated it's replaced with a more somber piece as you survey the results of the preceding violence, searching for the last enemy you need to shoot to summon the portal to the next level. It's all a real treat.

Another thing Nuclear Throne does well is keep you on a tight leash in terms of resources. Primarily these are "rads,"

green vials which double as your experience points, ammo and health. Ammo and health in particular exist in a kind of symbiosis. The way the game's item generation works (according to the Nuclear Throne wiki, and c'mon, you knew there had to be one), health packs get generated when you're low on health, but many of the appear take the place of an ammo pack that would have appeared in its place. So, if you don't get hurt much, you're rewarded with more bullets and such, but at the same time you only get health items if you need them. It's a good system, in my estimation.

Nuclear Throne is not an extremely long game. In common with Spelunky, the main game is just 16 levels long. I've yet to make it beyond the ninth level in all. The word is, after you complete the game, you can unlock the option to "loop" it, returning to the start and playing through it again at a higher challenge level. There are also hidden secret areas akin to Spelunky's side trip levels. Although the playstyle of Nuclear Throne is completely different from Spelunky, it shows that its





designers have gotten a lot of ideas from it, and that, I tell you, is a sign of its greatness.

Quarries of Scred

Released April 2015 by Hammerspace Games, through Surprise Attack. \$5.99 on Steam (https://store.steampowered.com/app/346770/Quarries_of_Scred/) and itch.io (<https://darkestkale.itch.io/quarries-of-scred>).

Homepage: <http://www.quarriesofscred.com/>

One of the more difficult problems in constructing areas for video and computer games procedurally is resolving the conflicting issues of solvability and interestingness. Yes this is a review please keep reading.

Let me break down that first sentence. Someone wants to make a game that makes itself, right? Randomly, to some extent or other, creates the areas which the player will explore, so they can play it again and still retain some (although not all) of that unexpectedness that marked the first play.

So they go to the Procedural Generation Wiki (pcg.wikidot.com) and, thus armed with a bucket of algorithms, get to work. And being a good designer, they make a prototype, a toy version, to make sure the thing they're making is fun before going the entire pig on it.

But hold on. Your better games normal don't, in fact, have randomly-made levels. Things like Super Mario Bros., they're actually very carefully made. Game design, in fact, is heavily based in communication, in teaching the player how to go and in foreshadowing upcoming challenges. What is usually desired is not a really random thing, but to make an algorithmic game designer to make new levels for you. That's solvability.

Against that is interestingness, which is something that can come out of very random systems. You can't predict what a really random process will do, and that's inherently interesting. It's so interesting that some people will wager money on pure chance. Not everyone is interested in guessing what dice will roll or roulette wheels will spin, but that

aspect of it, that producing of chaotic elements, has an allure to it. The best procedurally-generated games will take basic randomness and put through an algorithm that interprets it, that uses it to construct areas in a way meant to emulate the work of a human being.

Well, different games do this at different lengths. Most games try to obscure the chaotic practices. In fact, most of those algorithms over on the PCW are in fact ways to tame a random number generator, to make it comprehensible, to make it solvable, that is, to ensure the player can always get through. To ensure the exit is always reachable, to make sure there's no blocked off areas, to make sure challenges aren't too easy or too hard.

The point this winding introduction is intended to make is, this game, Quarries of Scred, takes the opposite approach. It basically just plops down screens full of elements, simulates a Boulder Dash-like physical system for them to exist in, and asks the player to survive them as best it can without

checking, at all, that the result is playable. Yes, game designers, you can do this, and the result can actually be a lot of fun!

It's not so fun to try to play a game and have it be unwinnable, so Quarries of Scred makes a compromise. It lets the player by tools, mines and lasers, for not much in-game money, which can be used to break down the difficult areas, the piles of boulders that block the deeper levels, and the enemies that stand in the way of piles of treasure. These tools are cheap enough that the player will almost certainly be able to earn enough treasure to get at least a few of them, but since your remaining cash is also your score, they have an incentive to get by with as few as possible.

In order to win the game at all, you have to earn a small fortune, 7,500 credits. Anything left after that is your score for the game. Very high scores are possible if the player can fully exploit a generated series of random caverns, but that's where the other side of the game comes in, those Boulder Dash physics.





If you haven't played Boulder Dash, it's a side-view digging kind of game, where you explore a series of tunnels made, for the most part, of space, dirt, gems and boulders. To finish a level, you have to get a certain number of gems then go out through an exit buried somewhere underground. There are enemies too, but the biggest danger are the boulders, which tend to rest in precarious formations. A boulder or gem with nothing beneath it falls, and if it lands on your guy's head you lose a life. But if these falling objects rest on top of another boulder or a ge, then it is unstable; it'll remain in place only so long as there's something on both sides to prop it up. If one of those stabilizing objects is removed—and often you have to get every gem to win—the object held on top will slip down into the open hole, which may contain your head. Ouch.

Classic Boulder Dash is a series of increasingly intricate pre-made traps into which boulders are given opportunities to rain down on you. In Quarries of Scred, the random

placements at the start of each level take a split-second to sort themselves out into traps just begging you to unsettle them. You don't have to get every treasure here, in fact digging out every gem is probably more expensive than its worth. Instead, you want to get as much as you can, buy your ticket home, and register your score.

There's not much pushing you in this, in terms of time pressure. There's a couple of modes that give you one- and two-minute time limits, which forces you to move fast and rely on experience and intuition to avoid getting crushed, but even without time limits, sometimes you get out just the wrong bit of dirt, or collect just the wrong gem, or push just the wrong boulder, and bring a rain of stone down upon your pitiful body. That's the way it goes.

There are enemies in this, bats and robots and evil plants and more, but they're pretty sparse. They tend to kill you less by contact with your miner and more by forcing you sometimes to act without enough forethought.

What we end up with is a pleasantly low-key computer game. If you're the kind of person who enjoys laid back experiences, Quarries of Scred may be up your alley. The graphics aren't super-hot (they're purposely designed to resemble the old-school character sets used by old microcomputers), and so long as you think about each situation carefully enough you can escape getting crushed in practically every situation. But you'll mess up more often than you think,

By the way, it's not obvious when you play, but the game tries to emulate a fictional kind of microcomputer to run its software on. When it talks about the "Tech button," it means the L key, and the "Run button" is K. And there is no button to switch between tools; if you buy a laser, and you already had a mine layer, you lose the mine layer, and have to buy a new one to make use of your mines. With this information you're equipped to go treasure seeking in the Quarries of Scred. Just remember to think carefully before you decide to upset piles of objects; most of

them may be valuable treasure, but all it takes is one falling rock to smash your chances of escape flat.





Play Interview with Josh Ge, Creator of Cogmind

Cogmind is a unique roguelike game. It is generally in the traditional style, a turn-based map exploration game. The default graphics are done with tiles, but beneath them it even has the ASCII interface aficionados know and love.

As with many traditional roguelikes, there's a heavy emphasis on the items you find. In fact, the items are most of your character. Although you get the opportunity to upgrade the number of item slots each of your bot's four major areas, Power, Propulsion, Utility and Weapons, slots are useless unless there's something in them. And those items are often taking damage or wearing out, frequently requiring improvisation on the part of the player.

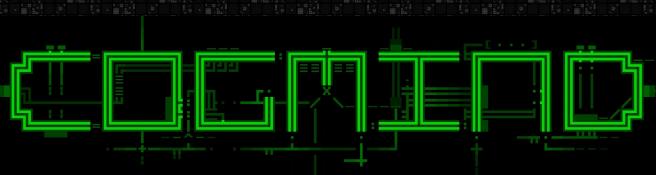
This interview with Cogmind's creator, Josh Ge, is nearly two years in the making! The possibility arose back at Roguelike Celebration 2016, but various things kept coming up. We finally concluded it mid-October 2018. Because of this, some of the information in the first section is somewhat out-of-date. Most of this interview was conducted over Twitter, with some email. It has been edited for publication.

What is Cogmind?

John Harris: First off, who the heck are you and what

is Cogmind?

Josh Ge: I'm a roguelike developer relatively late to the party, having only discovered this great genre by way of DCSS in 2011. Roguelikes immediately took over my life and I began work on X-COM: UFO Defense-adaptation X@COM, followed by a 7DRL in 2013 and REXPaint, an ASCII art and roguelike development tool, that same year. Shortly afterwards I started developing Cogmind (originally that 7DRL) full time, having logged over 6,000 hours in the past few years.



With Cogmind I'm trying to innovate on the genre without losing that core roguelike experience, by drawing on methods and concepts more commonly found outside roguelike canon, like advanced particle effects, the broadest soundscape ever to appear in a roguelike, and a living world where not everyone and everything is out to kill the player.

JH: Ah, that's kinds of high-level and vague though. Let's get a little more concrete: what is your character in Cogmind, and what is it trying to do?

JG: In Cogmind you play a robot whose abilities are derived purely from what components you attach, hence there is no XP or grinding, and by necessity or choice your loadout might undergo significant changes throughout a single run. I don't want to spoil the background or story, but strictly mechanically speaking you start deep underground and are trying to reach the surface of the world, usually via some nonlinear route. You can either fight your way out or rely more heavily on stealth and hacking, but in either case, understanding and adapting

to how the world as a whole perceives and reacts to you are vital skills for survival. By the end you have over two dozen active components (you know, a-z) working together in a synergistic fashion, many of them possibly scavenged from fallen enemies.

JH: Ah okay. That's kind out outside the basic "lone human exploring a dungeon" structure that's

traditional for roguelikes. What is character creation

like?

JG: That's just it--there is zero character creation. You start out naked, and basically create your character on the fly by collecting and attaching parts, or taking those parts from other robots. Items are a lot more common than found in classic roguelikes, as destroyed enemy robots can each leave behind multiple parts to salvage, and there are hundreds of parts strewn throughout a single map (though maps are also quite large to accommodate the different space needs, usually ranging from 100x100 to 200x200). Equipment and inventory management naturally becomes a big part of the gameplay, and therefore the interface is designed to streamline a lot of it.

JH: So, do you generally always have the same parts available every game so you largely make whoever you want, or are some more common than others, forcing the player to adapt and make use of what he finds?

JG: Yes and no. There are currently about 900 different parts in all, and while many

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will be found randomly, a lot of them also come from salvaging the remains of other robots. Robots have static loadouts, therefore understanding which types of robots carry what is a way to work towards putting together a certain type of build. For example ambushing lone Sentries for their armor and treads to take a more combat-oriented approach; then maybe destroying Hunters for their targeting computers and kinetic weaponry. There is also a system for "fabricating" specific parts that you really want but cannot find. Still, players who can't adapt do not get very far! This is especially true because

JH: Let's talk about the level generator next. One of the most interesting aspects of the game I've read about so far is that there are entities in the game that are responsible for digging passages and rooms. How generally does dungeon generation look? Are those entities I mentioned responsible for all the dungeons, or do they just mix things up a bit after the dungeon's already generated and in play?

JG: Map generation is actually handled in full before the player enters a given map. The in-game tunnelers and engineers sometimes seen building little new areas are purely

up half-finished? And could you give us some more examples of entities performing some side function other than being opponents? The analogy that comes to mind, BTW, are cells in a body, how they each have important roles to play in keeping it alive and healthy.

JG: Not by any means half, as it's just a small number of areas that work like that as a bit of fluff, but the analogy is overall very apt. Most of the robots you see in the world (by absolute number) aren't there to fight you, but carry out their own duties which have a real impact on the operation of the world. You can do your

Hacking into these other robots, combat-capable or not, can also give you access to their abilities. That's not a heavy focus of the game, but it's there for players who want to toy with it. (Some can be quite useful, though!)

JH: What kinds of limits are there on just being able to get "one of everything?" Inventory size, equipment slots, power source?

JG: Items are divided into four types of slots: Power, Propulsion, Utilities, and Weapons. You start with 2 free slots for each (except 1 for power), and gradually gain more slots as you reach new areas--you

Cogmind includes item destruction--you can lose everything and anything you have attached. All parts are destructible, and that's a core part of the gameplay. But pretty much every player can describe runs where they've found themselves in one bad situation after another and are stripped naked, only to flee and rebuild into some new form not long after.

Basic Stuff



for fluff/theme purposes, and are actually drawing on information the dungeon planner had already decided on beforehand.

They do represent one of the key AI features, though, that every entity in the game has one or more real functions that either generate changes in the world or react to changes caused by the player or other entities.

JH: That is interesting I think. So, if the player prevents those units from finishing their job, the level ends

best to avoid disturbing the peace, and thereby stay out of trouble, or be a hostile presence that disrupts these operations for whatever purpose.

Sometimes causing trouble is unavoidable, like trying to stop Recyclers from coming to take away the salvageable parts remaining after a confrontation. Those are probably valuable to you when trying to rebuild!

There are Engineers which rebuild destroyed parts of the subterranean complex, Workers that clean machines and pick up debris, Mechanics that repair other robots, Haulers that move stockpiles of components, and more.

choose the slots to "evolve." The base inventory size is 4 slots, but can be expanded by using storage utilities.

JH: You mention that most of the combat is with ranged weapons. One of the things about roguelikes is that missile weapons are always a bit more annoying to use than melee, because you typically have to enter a special aiming mode to attack. Does Cogmind have any ideas for remedying this?

JG: Cogmind's UI streamlines everything as logically as possible, so when it comes to attacking with ranged weapons, 'f' enters firing mode, and that





Exploring a robot-infested cavern

automatically aims at the closest target in range, or the one you last attacked (if there was one). Then 'f' again fires, so ranged combat is often as easy as hitting 'f' twice. For combat with multiple hostiles there are also easy hotkeys such

Dwarf Fortress style of taking less effort to construct a very large number of objects?

JG: Well, first of all Cogmind was actually designed purely in ASCII, even on the

spent exactly 326 hours on just the ASCII art for Cogmind (yes, I keep track of stats like this :D). That comes down to an average 26 minutes per piece, which sounds about right. (I also have a bunch of failed/inappropriate/surplus art that got thrown out as part of that process, too.) So while individually I find each piece less difficult than I would pixel art, it's still fairly time-consuming to get it all just right, not to mention the significant multiplier when it comes to doing this for hundreds upon hundreds of objects!

JH: So, let's say I have just started a game of Cogmind. What does the general

Gehennom, the ascension run and the Planes, each of which have major differences from the others. In other words, how varied is the trip up in Cogmind?

JG: There are several ways to look at this.

In terms of the world structure as a whole, I can't get into the details because spoilers, but while everyone starts from the same point there are a number of things you can do which have a significant impact at some point later on, or even throughout the rest of the game. Most of these elements don't come into play until the mid-game, but experienced players are



as Tab for cycling through all available targets using the same priority/preference system, and Shift-Tab to cycle in reverse. It's all pretty fast. Cogmind also offers full mouse support for everything, so naturally for mouse users it's as simple as clicking on things to shoot them.

JH: Let's talk for a bit about what's one of the most immediately striking aspects of Cogmind, the graphics. It uses graphic tiles for the game world, it seems, but ASCII for the interface and, amusingly, ASCII-art portraits for items. Is there anything you'd like to point out about the graphics? How long did it take to make all that art? Did using ASCII help, in the

map, and about 25% of the current player base uses that mode. The tileset didn't even exist until more than two years into development, a few months before I released the first public version, so ASCII is very much at the core of the design, and even the tileset style I chose sticks pretty closely to that underlying aesthetic. That was important to me as both an attempt to keep the benefits of ASCII-styled tiles, while also helping the overall interface feel more cohesive.

There are currently over 800 pieces of ASCII art for items, and another couple hundred for both interactive and non-interactive machines. Altogether I've

"shape" of the game look like? That is to say, are there major tasks to accomplish on the way up, like subgoals that must (or just could) be done, or is it mostly just a sort of a homogeneous journey? Like... the archetype that always comes to mind for me for this kind of thing is The Odyssey, where the nature of the journey changes several times as Odysseus returns home. In NetHack, after the initial period, there are some bits where the game

changes in fundamental ways: the Mines, the Quest, the Castle,

able to leave the early-game areas within about 15 minutes (survival becomes increasingly challenging the further you get). None of these are absolutely required, but a player may decide to aim for a certain area to take advantage of whatever longer-term benefit it provides, be it a highly specific "doing this will later trigger something that I need" or a more general "this area is likely to have the kind of loot or intel I need right about now."





The potential effects vary wildly, though they are not procedural; they're all features which were added very intentionally, designed to mesh with both the mechanics and lore.

On another level, each type of map will tend to have its own unique mechanical quirks, and require unique strategic approaches. So the world is by no means homogeneous.

And from an individual player character point of view, the aforementioned item destruction and potential heavy losses combined with the ability to eventually use 26 items at once mean that not only is

while, and then later find a sufficient cache of gear to once again transform into a fighter, likely with even deadlier firepower than before. Sometimes these are calculated shifts in strategy, and others they're just "going with the flow," where I believe Cogmind's design is at its strongest.

Project Progress (Circa 2016)

JH: Well, let's talk then about how it's progressing.

JG: It was first introduced at \$30 in May 2015 on my site, and then half a year ago in May 2016 I lowered it to \$25 for the anniversary. But it's gradually coming

There are things I want to add to Cogmind, or improve further, for which it doesn't really make sense to continue calling the game "alpha" in its current state—even at Alpha 1 it's been a complete roguelike experience, and that was 18 months ago! So instead I'm going to consider 1.0 to represent "story complete," and continue developing for some time after that.

(*Josh's notes on Cogmind's development are published on the game's development blog, at <https://www.gridsagegames.com/blog/>*)

Before long I'll also be looking to write a retrospective article

This is why I keep feeling tempted to postpone it while I make it "perfect" with all the other things I have planned. That said, there are already thousands of players. More than enough eyes, I think!

JH: So, the 1.0 release is planned soon then?

JG: Well, the main thing that bothers me is that even on my own long-term list of things to do, I'm aware of a near inexhaustible number of things that could be improved. This is without further input. And once I call it 1.0, newer players will certainly start to bring those things up, and dealing with that as a solo dev is a



one trip likely to vary from another, but even a single trip can include multiple unique phases. Compared to a class-based roguelike, for example, where at the beginning you choose to be a spellcaster and by the end you're likely just a better spellcaster, a single Cogmind might start out wanting to go at the enemy heavy combat style, but somewhere in the middle get crushed and have to flee, build back up into a guerilla-style hacker for a

down and before long will be \$20 by the Steam release. Regarding pricing I've been planning to write a blog post pretty soon to explain my decisions in more detail, but I prefer this model and it's working out quite well.

(Note: Since then, Cogmind has released on Steam, currently for \$20.)

Just a couple days ago I was planning out the final stretch before 1.0, and the more I look at it the more I'm thinking it's going to be a largely symbolic milestone.



examining Cogmind's evolution through alpha over the past year. As of today I've so far clocked 6,272 hours of Cogmind-related work since starting over three years ago.

JH: That is a lot of time, even if you don't consider it "finished" yet. There is still a lot of value in a solid 1.0 release though, psychologically and to the players. Especially if you get a lot of players from a solid major version release, some issues may only turn up only after you get a lot more eyes looking at it, I'd think.

JG: It's a labor of love. And the psychological meaning is certainly important to me.

significant drag on development time, which is why I keep wanting to put off that release.

The story could be completed within as little as one more alpha release.

JH: So, that means you can play the game all the way through and reach a conclusion?

JG: I believe there are some more accessibility issues I should address before daring to say 1.0, namely key rebinding and an OSX wrapper, which altogether could be rather large stumbling blocks.

The game has had an end and conclusion since Alpha



JH: What I'm doing now is adding all the outlying areas and alternative endings.

JH: Aah. So outlying areas then are like dungeon branches? And alternative endings are like, say, the "ultra endings" in ADOM?

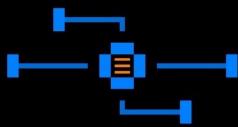
JG: What was missing for part of alpha was the ability to meet the NPCs that play major roles in shaping the world. Now there are only a couple of those left... Cogmind essentially has branches like DCSS, so yep, that's what I've been working on for the past year--adding more branches. All the branches are done now, except for a

dislike having to do that because my primary goal is to simply make a great roguelike, the only way Cogmind has been possible is through the community support that's kept development humming along for quite a while now. I could've pretty easily tapered off the roadmap and called it done last year, and by now it would've paid for itself, but what I decided to do instead is make the world and feature set much larger than initially planned. The thing is that means it's nearly impossible to break even for now because I continue to spend time/money on development while player growth maintains a pretty even

extra funding left over to create The Next Roguelike. Not to mention it's rough doing these ridiculous hours at minimum wage! Note that my entire process is to be as open about as many aspects of development as I can, so in an article earlier this year I already shared revenue details (http://www.gamasutra.com/blogs/JoshGe/20160519/272832/Cogmind_Year_1_Sales_and_Dev_Time_Data_EA.php), though the full answer to questions of revenue is going to be another retrospective article I'll be writing down the line. It'll be interesting to see what kind of impact Steam has on the

world when the player isn't around?

JG: Earlier I brought up some of the engineer, worker, mechanic, and hauler behaviors, and while there are more, discovering how the world works and what happens is a part of the experience I don't want to spoil. I do try to play it down, though--it's not as expansive as all that, i.e. they're not really "lives" in the sense of AAA RPGs and their AIs with unique routines and whatnot. That's on the generic side, while in the case of unique NPCs or those with dialogue, they're out there doing their own thing and the player is basically a side



few little very special odds and ends to come soon. And yes there are multiple endings of varying difficulty, akin to ultra endings though probably not quite as involved.

Indie Business

JH: Literally just before I typed this, you sent out a tweet saying you had just reached 3,000 players, and expressing hopes that the game would one day be profitable. What do you suppose it would take, in terms of sales, for that to happen?

JG: Since this is my full-time job, I certainly keep a close eye on the financial side of things. As much as I

pace, sustaining development without really accelerating to fully catch up to my progress.

That said, there have been good concentrated sales boosts like the times RPS/PC Gamer have written about Cogmind, and the initial launch which attracted support from a *lot* of long-time fans. So if I were to stop developing now, fewer than 3,500 players would be enough to break even. But as I mentioned before there's still more I want to do with Cogmind, even after declaring 1.0! And I'm cool with that plan for now, but I do also have to consider that at some point in the future I would like to have

future of Cogmind and my work... (and by extension the potential exposure of mainstream audiences to traditional roguelikes, since Cogmind could reach players who are not yet aware of the likes of ADOM, ToME4, and CoQ)

The Game World

JH: Let's get back to the game itself... you talked a bit about how the other characters in the game have their own lives independent of their interactions with the player. What kinds of things go on in the game

show to all of it. Sorry but I can't really talk about this stuff in detail.

JH: Is there anything in particular about your game that you think stands out, that you rarely get the chance to mention?

JG: Well I talk about Cogmind a lot, and write about almost everything I do in great detail on the dev blog, so not really :P. But because I've been working on it for quite a while and



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In-the-field servicing and upgrading

there is so much information out there already (easy to get lost in it all!), some time ago I put together a collection of images that summarize the types of things Cogmind is doing for the genre that have never been done

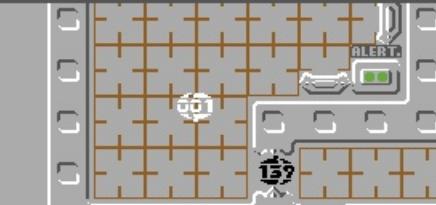
vivid soundscape has worked out really well. I love fantasy games as well (before X@COM I spent five years creating a fantasy SRPG), but I feel that if I'd gone that route it would've been much more problematic to create such

Paradroid. (I don't have any experience with Commodore, only Atari.)

As for my original inspirations, the 2012 7DRL idea came from a confluence of two sources. As a big fan of Battletech I wanted to make a roguelike version, but decided it wouldn't be right to do one without a hex-based tiling engine, which I didn't have.... So that idea was off the table-- disappointing, but while browsing "game ideas" threads on random forums

Mobile

Paradroid.



Paradroid

funnier is that I was doing the browsing in a hotel's internet cafe while on vacation, so it wasn't even my own computer :P

ASCII Graphics, In Its Own Way

JH: In the 1 1/2 years since we last talked, you mentioned the ASCII



before, or are rarely seen:
<http://www.gridsagegames.com/cogmind/innovation.html>.

Though what individual elements stand out to each player are going to be different, probably the number one aspect that all other design decisions revolve around is immersion. It seems unusual to say that about a turn-based ASCII roguelike, but the sci-fi/robot/hacking theme combined with a

a believable world.

(*There was a long lull in the interview around this point. We picked it back up again in July of 2018.*)

JH: Are you familiar with the Commodore game Paradroid, and was it an inspiration for Cogmind?

JG: While I'd never heard of it before a few years ago, you can be sure I started hearing about it not long after Cogmind's release!

About 5-6 times already I've had players mention that Cogmind reminds them of

a few weeks later, I found a literal one-line post from someone who suggested a game where the player creates themselves from limbs and pieces of their enemies. It immediately hit me: What if I combined this idea with Battletech? And thus Cogmind was born...

Beyond that there are many other inspirations, mostly from outside video games, but that was the initial spark.

I've since searched for that post many times--I'd very much like to thank the poster and give them a gift, but it was already too long ago, and really was completely random forum browsing. What's even

effects. They've just gotten better in the time since then I think. How does the game display? Is it in a terminal window, or is it a graphics window with rendered ASCII? In the latter case, is there ever any temptation to "cheat"?



Battletech

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JG: It's an emulated terminal in the vein of libtcod, so yes it's essentially copying fonts from an image to display on the screen rather than using a regular font file. This allows the graphics to be pixel-perfect at every resolution, for which I've put together over 100 handcrafted bitmap fonts, and Kacper, the tileset artist, drew five separate sets of the same tiles for each primary tile dimension.

I've written about it, and many other technical and design aspects, in a FAQ for r/RoguelikeDev before: <https://www.reddit.com/r/>



[roguelikedev/comments/3ee3pr/faq_friday_17_ui_implementation/](https://www.reddit.com/r/roguelikedev/comments/3ee3pr/faq_friday_17_ui_implementation/)

It's actually not possible to cheat, though, at least not without switching to a different engine, because all it can do is render ASCII onto grids and assign each a foreground and background color.

Technically it wouldn't be too hard to, say, add health bars for enemies using some sort of new overlay feature, but I'd rather find solutions that work within the terminal style itself. Once you've laid down a set of graphical rules and designed for those rules, breaking them later on

inevitably leads to inconsistencies, and inconsistency is generally a bad thing in video games, especially where aesthetics and UX are concerned.

Having clear limitations set in stone early on is great, though. It's all about getting creative to maximize both the informational and aesthetic qualities of the interface.

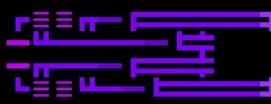
Supporting Varied Gameplay

JH: If I read the notes right, there is a variety of ways to go about playing through the game, right? Like, combat, evasive, etc. Are there any specific kinds of

to some degree conform to D&D tropes: propulsion is for your speedy/stealthy rogue, utilities are for jack-of-all-trades mages, and weapons are... yeah. So by evolving more of a given slot type, your build will naturally lean more towards that style.

In reality it's more complex than that, especially now with nearly 1,000 parts, and especially the utility category, which is the most versatile and can support any style—it's more about the individual parts.

Related to this topic, we did a r/RoguelikeDev FAQ on Character Archetypes, at <https://www.reddit.com/r/>



playstyle that you aimed at supporting? Like, explicitly allowing the player to take on a D&D-ish role: an evasive rogue, a hard-hitting fighter, an area-effect wizard, a healer-mechanic, maybe a character with good diplomacy skills like a bard, etc?

JG: While there are a range of unique play styles, and hybrids in between, early on I had no explicit aims there. Cogmind's initial design came from the 7DRL, and the idea was to simply focus on implementing the core mechanic and making that interesting and fun.

Although in building it I noticed right away that, coincidentally, three of the main categories of parts did

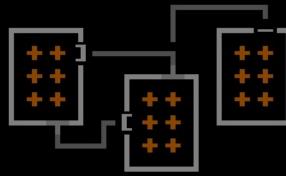
[roguelikedev/comments/659d61/faq_friday_62_character_archetypes/](https://www.reddit.com/r/roguelikedev/comments/659d61/faq_friday_62_character_archetypes/), in which I gave a rundown of Cogmind's more typical build styles as of last year.

It's interesting that you bring up this question now, though, because the very next release is specifically focused on adding a new play style, one which can also optionally be mixed with almost any other style in hybrid fashion for pretty good results, too.

The new robot hacking system (<https://>

www.gridsagegames.com/blog/2018/07/robot-hacking-take-2/) doesn't have any direct analogs in fantasy, but could be seen as a sort of mix between rogue and mage, a strongly utility-focused "class" that operates outside the standard rules of combat and avoidance. Last year in talking about the concept of this class and the strategic space it could fill, players also referred to it as the "commando" build.

This is a major change from the older, simpler robot hacking system, which was focused on either disabling or befriending enemies, and when working on the older build style I very clearly had



the idea to make it sort of the "summoner" of Cogmind. As I talk about in the blog post linked above, players eventually figured out how to take advantage of this system and I had to nerf it :P. Anyway, it'll be replaced by a much cooler and deeper system soon!

JH: The difficulty with designing for a variety of playstyles is allowing a character playing in unexpected ways to not encounter impossible



niche



roadblocks. Like, to go back to D&D as an example, a mage character encountering a must-defeat foe who is immune to magic and too strong for their meager fighting skills, or an enemy with perfect perception against a thief. One wants all trials to be passable with many different styles (or at least avoidable), without watering down the challenge. I imagine that must be tricky.

JG: Part of the way I got around the "impossible roadblocks" issue was by making almost everything optional, especially the most challenging areas. And of course running or circumventing danger is

sneaking around and creatively overcoming obstacles rather than facing them head on.

JH: I wonder if you've given any consideration to a "pacifist" character, who eschews all weapons, maybe a peacemaker with high robo-charisma that only uses discarded parts? Well, it's an idea, heh. It's entertaining to think about but might not fit the game.

JG: Pacifist runs are already a thing in Cogmind. There's an official score bonus for it (which increases with every depth you don't kill anything) and people do that! Pacifist speedruns earn a lot of

drama there because they can arrive while you're still fighting, if it's a prolonged engagement. So you have to decide whether it's worth taking time out to shoot them. Battles can sometimes end with relatively clean surroundings, which can be dangerous if you aren't carrying enough spares for damaged gear!

JH: Reading through the interview from before, I like that the game feels like a world to itself, kind of almost like an ecosystem.

JG: It's very much an ecosystem, and I'm always adding new elements to that, making sure that any

again when I wanted to make Cogmind a commercial game, was whether to introduce biological parts. I imagined working a whole separate faction into the story which could be based on biology instead of machines.

JH: Biological parts seem to me like they'd be kind of less interesting, like thematic drift. Not that they couldn't be made to work, but it's like.... Cogmind is a game where you construct your robot as you go by taking parts from other robot. It feels like that's "enough." To go beyond that feels like it might be sequel territory.



always an option. Many people who haven't played Cogmind don't realize that it's actually a stealth game. And *most* of Cogmind's world is optional, so players who aren't equipped to take on certain challenges can simply avoid them. But I do also explicitly design for multiple approaches to challenges in most cases. Personally I prefer the Shoot Everything approach to play, as do some, but then there's a large portion of players who enjoy the

points and can get pretty high on the leaderboards to reasonably compete with combat runs.

JH: How easy is it to acquire new parts if you aren't making them yourself, so to speak?

JG: Easy, since all robots are made of parts.

JH: Do you have to race scavengers to them?

JG: Nah, you can just shoot at the Recyclers and they'll run away.

Although there is often a bit of

new system ties into multiple other aspects of the game, or even AI. Like the new robot hacking system, that'll introduce a couple new jobs for one of the common robot classes.

JH: That kind of reminds me of another thing Cogmind is sort of sideways-adjacent to, the obscure Gamecube game Cubivore. It's an action game where cubical animals tear parts off of other animals and eat them, and grow new parts that they've obtain.

JG: Oh wow that does sound interesting.

One of the big decisions very early in 7DRL dev, and

JG: Yep, ultimately I decided it wouldn't work as well and cut all that out. I still might play with the idea for a 7DRL one day. I do have some plans. Too many plans...

Mixing bio-parts directly in with Cogmind would be worse though, especially considering the original point was to keep Cogmind "small." Look how that turned out xD. Was going to be a short project, then move onto the next, but here we are five years and over 9,000 hours of work later...

JH: How is it coming along, BTW? It has been like a year and a half since the first part of the interview. Is



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it still beta? Or alpha? Has it hit an "official release," whatever the heck that means these days. The animations look very polished.

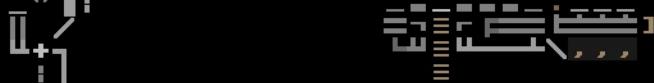
JG: Beta 3 launched on Steam October 2017. The story is 100% complete as is all the primary content, I'm just adding lots of extra stuff for fun now, and do need to finish a few final required things before I'd call it 1.0. Currently it's Beta 6, and Beta 7 is in late dev. Already have solid plans for the next few Betas.

JH: Ah, you're still getting money from sales along the way, right? Is there a 1.0 scheduled eventually?



JG: Yeah, been on sale for... over three years now, and that's how I keep development going. No set schedule for 1.0 though. I'm happy to just keep improving it and adding more features if there's enough people who want to support the game. Earlier this year I showed a zoomed out image of my TODO/potential features list, which is twice as long as the changelog from five years of continuous full-time development, so.... :P

Cogmind 2 would be an alternative option in the long run, and allow us to explore more of the story and world that the first can't reach, so I like that idea as well.



background in the genre, is that there are usually numerous loops going on at the same time.

It's not just about the enemies you're facing and parts and resources you have to manage, there's also the whole ecosystem to contend with. So coming up with a great plan for your current situation which only takes into account what you have and can see right now is almost certainly going to fall apart at some point, probably sooner rather than later.

You'll need to improvise a lot as enemies warn other nearby enemies, or call reinforcements, patrols and other squads actively

circulate around the map, non-combat bots sometimes interfere with your own goals, the global alert level rises due to your actions and you attract more attention, and lots more (some of it contingent on what you've done elsewhere/before, plot-wise).

Also, the fact that item destruction applies to *any* item (armor or not the items are all protection for your core!), means that unless your build is perfectly balanced and unlikely to succumb to attrition, you're going to have to carefully consider what kinds of spare parts to carry and plan ahead for how to

describes a lot of roguelikes, but there usually aren't this many systems layered on top of one another, so it can be kinda overwhelming. It's also often difficult for new players to see exactly when they made the most important mistakes that ended up losing them a run, because death in Cogmind doesn't come swiftly and is usually a cumulative result of multiple mistakes made earlier on, but that's another tangent.

Playing without regard for all these other factors is fun (I often sorta play like this when streaming my runs), but that low-optimization approach won't cut it if you



acquire more parts when spares, or something vital from your build, is suddenly gone. So there's a lot to think about in terms of the "item churn loop."

Overall, high-level play is rather complicated and requires a decent amount of knowledge before you can be confident in survival, so it's not the kind of game you can keep throwing runs at and fooling around with in the hope of learning how to win. You'll have to really think about your decisions

and their consequences to get further. Yes that

want to tackle the extended end game, alternate endings, or other difficult challenges.

(The final portion of the interview took place in October of 2018.)

Advice For New Players

JH: What would be some advice you'd offer new players? What is a good strategy to make it out of the early game?



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JG: All the best advice for that has been boiled down to a list of tips found in the dedicated Survival Tips section at the beginning of the manual (also found in game). It's really the only part of the manual that's recommended for new players to read, since the in-game tutorial messages and context help cover everything that's necessary in terms of mechanics. Though there is one other section at the beginning of the manual which talks about important differences between Cogmind and other roguelikes, specifically for those with experience. Knowing these in advance is a big help.

much "health" (integrity) that enemies plinking you for a few turns doesn't mean much in the grand scheme.

JH: After playing a couple of games, I notice a prominent early choice is whether to go for legs or wheels. From a beginner's standpoint, what are the advantages of each? How about when treads show up? How about projectile weapons vs. lasers?

JG: Technically you can find any type of propulsion even on the first floor (including by taking them from bots that use it), though airborne propulsion is not advisable until after a few floors. In a

just need to pair them complementary parts and suitable tactics. We just had the propulsion types question/discussion on the Cogmind subreddit: <https://www.reddit.com/r/Cogmind/comments/9qg8hb/> propulsion_proscons/ It can also be really effective to put together a hybrid build using multiple forms of propulsion.

Weapon categories are the same in that there's a wide variety and each has their own advantages and drawbacks, but all the strategic possibilities combined with all the mechanics you have access to right away are rather overwhelming for

swapping out parts for those with a higher rating is the best way to ensure you'll come out ahead :D

JH: Things seem to get damaged easily, and weapons seem to degrade through use. Can you repair damaged systems, or is it something where you're usually switching things out?

JG: Repair is possible via several means, yes, but it's not all that common, and not something you'll do until maybe in the mid-/late-game, and even then only if it's something which is vital for your build strategy. It's more common for experienced players to get



Probably among the most absolutely important notes from those tips: Never leave any equipment slots empty, and also keep a full inventory at all times, often with a storage unit for extra capacity and therefore more spare parts. Attach replacement parts even in the middle of battle! And when encountering early-game enemies, try not to confront them in the open, instead retreat to fight in bottlenecks at point blank range because you have so

general sense, propulsion exists on a spectrum from low support/high speed to high support/low speed, from flight -> hover -> wheels -> legs -> treads, so wheels are in the middle there and may appear to be a pretty well-rounded option, but not recommended for new players because they'll tend to get shot off quickly without superior tactics (or good wheels :P). I always recommend legs for new players, because they're the beefiest propulsion which is also pretty common.

All types are valid, you

new players, so one of the Survival Tips is to simply go with whatever parts have the highest rating, to avoid decision paralysis when starting out. Smart players will always carry a spare launcher and melee weapon though (in inventory), the former for taking out groups of weak enemies and the latter for chopping through walls to make shortcuts, or to use as a last ditch weapon when resources or weapons are low.

In any case, it'd be hard to answer questions about weapon type without writing a lengthy guide, since there's such a variety and a lot of factors to consider in each decision. Just

ahead of the attrition issue by avoiding much damage in the first place, either by avoiding combat, evading hits, using shields or resistances for mitigation, or "the best defense is a good offense--neutralize everything before it can mess you up!" And once you know how to give yourself strategic and tactical advantages in many different likely situations, you'll end up taking a lot less damage overall and usually be replacing damaged parts with even better parts before you lose the first ones.

For those who enjoy playing recklessly, however, or aren't yet skilled enough to avoid all that damage,

Powered by the Open Source Game Engine



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having lots of spare parts in inventory like I mentioned earlier will often come in handy (read: allow you to not die xD). Like my Twitch streams are fairly suboptimal Cogmind play, but it's fun and I still often win, and carrying a variety of spares, basically having backups/alternates for everything, is as important as trying to theorize new ways out of sticky situations...

JH: If your energy core gets destroyed but you're not, is there anything you'd suggest a player try doing to get out of trouble?

JG: The best course of action depends a lot on the

means head over and pick it up if that'll get your build back in working order! Don't worry too much about stray hits, I mean you're already less of a viable target when moving.

JH: It seems to me that Cogmind has "programmed" character development, by which I mean, experience-like advantages are gained not through in-level accomplishments, but as a result of progression (after specific levels). Is this accurate? What caused you to use this system? Are there any ways players could end up ahead of/below the curve?



circumstances. You can escape almost any dire situation in Cogmind and come back to win, but in a very general sense one of the easiest ways to recover from a power loss scenario (certainly *the easiest* if you're not currently in battle!) is to just salvage a non-combat bot. The non-hostile green bots running around just doing their jobs can be a great sources of vital emergency parts, like power and propulsion. That should be enough to tide you over to a better power source taken from a combat bot.

Also if there's already some nearby power source lying in the rubble from an ongoing battle, by all

you're not "locked into a class," and this allows a lot more freedom across a run—you can be tanky for one section of the world, then stealthy while exploring another. Sometimes you are even required to "respec" like this in order to get the most out of certain special areas, evolving your build for different capabilities in ways that would be unreasonable to expect in a class-based roguelike. This ties in very well to the fact that there are so many different parts out there, acquiring them is fairly easy, and item attrition means in some cases you're even forced to rebuild based on your environment.

(at least that's where the idea originated), albeit not as nasty.

Stat-wise prototypes are always better than similarly rated parts, sometimes way better, and sometimes they come with unique properties or abilities. So if you can use prototypes you'll generally want to.

But sometimes they might be "faulty," in which case attaching them could cause your heat to spike, corrupt your system, temporarily disable other attached parts, meltdown and damage your other parts, or at worst permanently disable another part. Of course you can't tell which



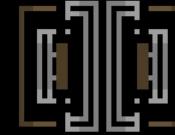
JG: Cogmind is very focused around what parts you use, so technically it doesn't have much in the way of stats at all. Only your core integrity increases with each depth closer to the surface, plus you get a tiny bit of "free" extra heat dissipation. That's it. All other capabilities and stats come from parts.

While there are a few special ways to get ahead of this curve, they don't really come into play until later in the game, and using this type of progression is an important part of the design because that means you are free to become anything at almost any time. Unlike most roguelikes

I did play with a "modules that permanently upgrade your stats" approach for the Cogmind-like POLYBOT-7 this year for 7DRL, and it's fun, but results in a completely different experience built around that sort of thing. I wanted Cogmind to be entirely about your parts.

JH: What are "prototype" items? What are the advantages and/or dangers of using them?

JG: These are essentially Cogmind's version of the roguelike ID game and cursed items



are faulty and which aren't, so attaching them blind carries that risk. As soon as you've identified one, however, all others of the same type are identified and you can distinguish which are faulty. Unlike cursed items in other roguelikes, you can remove them freely, so there's just that initial danger that they'll have some little side effect. There are many ways to ID unidentified parts before attaching them if necessary, or you can just attach them



NICHE



and hope for the best (they're not usually faulty).

Even more than the risk-reward aspect, though, I really like the idea of simply being unsure what this presumably good part is until you actually attach it. It's kinda like finding an unknown treasure, you know its general type so you're already interested, but it could be any specific prototype and you're eager to know what that is, and could be really happy with the results. That anticipation is a great feeling, perhaps multiplied when you find many at once, which is not uncommon.

tournament?

JG: I think you might've misunderstood one of the messages there, since there is no dynamic difficulty, just a message referring the player to the options menu to adjust the setting if they find the game too difficult. Mastering a game with relatively consistent, knowable difficulty is an important part of roguelikes for me, especially with Cogmind where any given run is already winnable, so it's more about improving one's own skill to meet and overcome the challenges balanced for the game, rather than hoping it provides a fun experience

done those four little rooms you know... all the basic concepts you need to play!

So the "real" start just drops you in a room of items ("the Scrapyard," as per lore) and lets you go. In fact, there's now even a quick-start option for advanced players that literally just attaches everything in that room, puts the rest in your inventory, and places you next to the exit.

Technically Revision 17, that bot who welcomes you at the beginning, will occasionally appear at the start of a normal run just to remind you of the plot, since they play a role in it, just not every time since

aspects that affect future runs, these are tied in to lore knowledge. There is a lore collection UI as well where you can review all your collected lore across every run.

There is a *lot* of lore, and within that lore are elements that give the player access to new content. For example there are a fair number of special machine hacks that can be learned from NPCs and other sources, and knowing how to do these hacks can change player strategies on that and future runs. On an even greater scale, though, because maps do not generally exist in isolation--there are multiple factions



JH: After playing a few games, I noticed the game started dispensing with the initial introduction, just plopping down my robot in a starting room with a variety of starting parts. I've also seen a message to the effect that the game tries to adjust itself to the player's skill. Is there a way to find out what the game's current difficulty is? Will it be possible for a player to turn that off eventually, say, in case he wants to test his skill, or participate in a

tailored specifically to you.

(Note: We tracked it down, in fact I did misread a message. -JH)

As for the change to the starting area, yep after your third run it'll get rid of the four-room map and just plop you in that room full of parts. The four rooms were just built as a tutorial-by-layout where you'll encounter new elements in each room that coincide with the messages in the log as you interact with them, introducing concepts one by one, and by the time you've

that could get annoying.

JH: We've established that outside the player-settable difficulty setting, the game does not try to scale the challenge artificially. But, is there anything else, besides the tutorial, that can change about the game depending on concluded plays? Like Nethack's bones levels, or unlockable parts or dungeon branches?

JG: There are a number of meta activities that have only optional impact on the game, like the many achievements and the item gallery, where you can see your records of (and ASCII art for) every part you've ever used, but as for meta





CROSSWORD PUZZLE

"Three From Atari"

ACROSS

1. Dorsal and pelvic, pectoral and caudal.
5. Sludge
9. A price to pay the pot
10. While you can't breathe this form of oxygen, it's still essential to life on Earth
12. Atari 1979: Considered to be one of the very first first-person racing games
14. President Aaron
15. This age-old publication is the English-speaking newspaper with the largest circ. in the world
16. Follows shock
17. An object of thought
18. What Achilles did in his tent
20. Source of wasps
22. What a large lupine did to wreck construction
24. Atari 1991: Early 3D combat helicopter sim
28. Persistant request of angels/aliens upon the band Styx
29. When dark that thing that cats oft do
31. A curriculum focusing on science and mathematics learning.
33. Right hand of Hook
34. Freddy's street
37. Shout heard at some Olympic events
38. Inhibited state of hands or tongues
39. Atari 1986: Revival of an early popular series of racing games
42. Like, lingo, pidgin, argot, jargon
43. You can draw them with 45 Across
44. Counterpart to Disney's Tramp
45. Use them to ensure the

accuracy of 43 Across

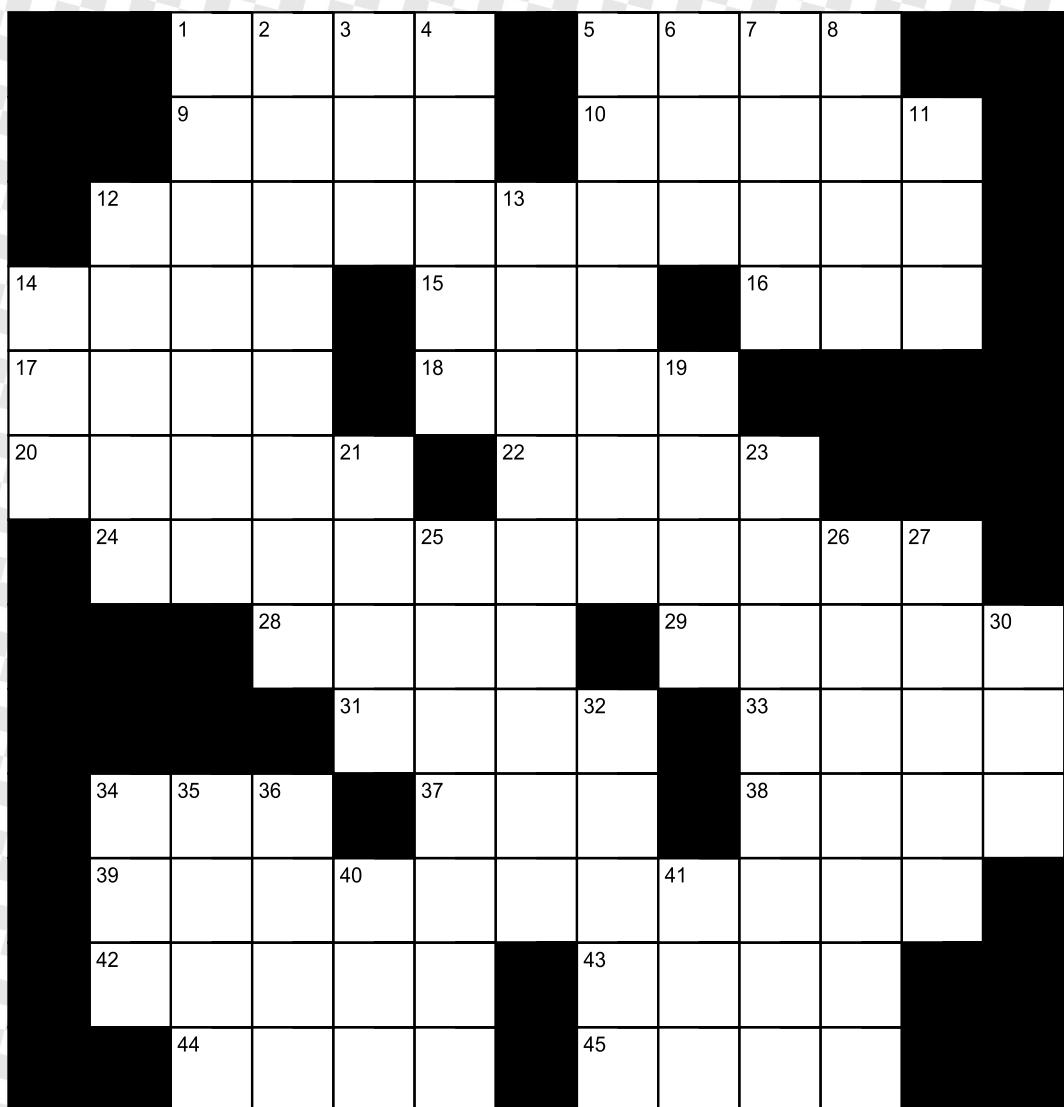
DOWN

1. Among their folk, the most ideal judge is this
2. Unappreciative people
3. Placeholder for an ordinal
4. Living quarters for a badger
5. The surname of Magilla
6. Israeli armament
7. 1962 model from Chevrolet
8. It's not pronounced like

"canoe."

11. Before, poetically
12. Popular paintings
13. Pretty well certain
14. The place for either garbage or executables
19. A variety of seaweed
21. Bigger than lakes, smaller than oceans
23. The activity of losing
25. The form of religious worship
26. A personal pick for a position of power
27. An individual candy

30. Efficient device for converting power into light
32. Sticky goop flavor
34. Kweue, Arr, ___, Tee, Eew
35. As a code, input the opposite of R-D-R-R
36. Jack Valenti used to run this organization which lobbies heavily for anti-piracy laws
40. Suffix for "Fri," "Stip," "Def" and "Ext"
41. Free of



THANK YOU FOR READING THIS ISSUE OF EXTENDED PLAY

Issue 1-2, October 2018

Extended Play is designed and, for the most part, written by John Harris (@rodneylives).

If you enjoyed it, please consider contributing to its Patreon, at:

<https://www.patreon.com/extendedplay>

Or drop the creator a line at johnwh@gmail.com

Extended Play can be obtained from the Internet Archive, or from its homepage, at

<https://sites.google.com/view/extendedplay/home>

Extended Play is made with Scribus, GIMP, LibreOffice, Paint.NET and Fontstruct.

Also by the creator:

@Play

<http://rodneylives.blogspot.com/2010/02/welcome-to-play-collected.html>

<https://rodneylives.itch.io/atplay>

Somebody Set Up Us The Rom

<https://rodneylives.itch.io/ssuutr1>

<https://rodneylives.itch.io/somebody-set-up-us-the-rom-part-2>

Solution to last issue's crossword puzzle

The following are the friends of Extended Play
(Presence here does not imply affiliation)

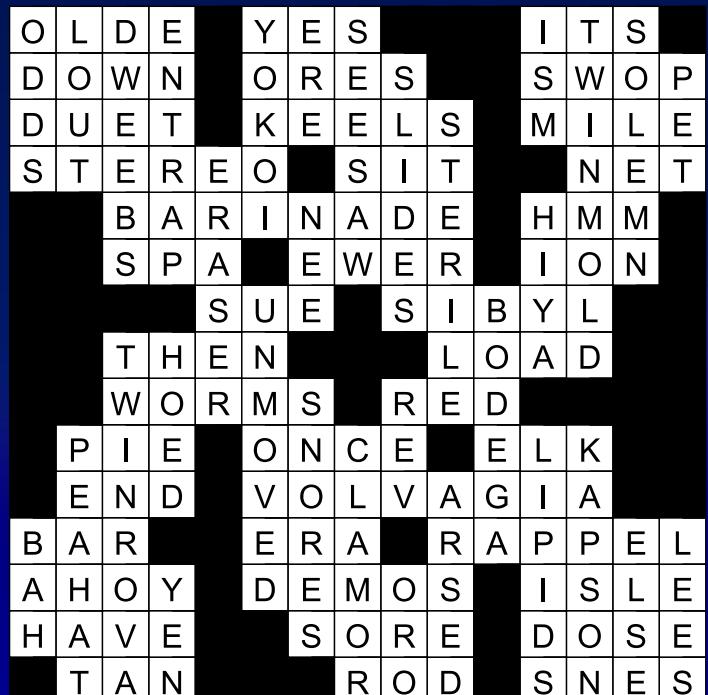
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HINDSIGHTS

From Minit....



aaaaaaagh hurryuphurryuphurryuphurryup

From Gradius (NES port on Switch)....



From the Vic Viper Operations Manual: "Warning: Volcanic activity will cause engines to stall for about twenty seconds."



Can you imagine how effective the iconic Big Core Fighter would be if those barrier shields pointed *right* instead of left?



Final stage! When all those popcorn enemies you blasted throughout the whole game gang up on you and get REVENGE.



This ghost is sad every Halloween, because his friends and all the trick-or-treaters remark upon how annoying it is.



This is what Gradius fans call a "Zub Rush." It amuses them when it makes new players scream.



"At the planetarium Thursday nights, we take the laser projector outside and use it to menace passing aircraft!"



Kids, be careful not to study too hard in school or this could happen to you.